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LESSONS IN HARMONY

(FIRST FORTY)

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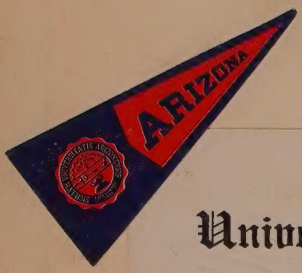

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ARTHUR OLAF ANDERSEN

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The First Forty Lessons in Harmony

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BY

ARTHUR OLAF ANDERSEN

Teacher of Musical Theory
American Conservatory of Music

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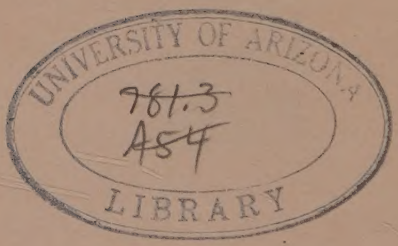

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September, 1931

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THE

FIRST FORTY LESSONS IN HARMONY

This series is an arrangement of forty lessons in harmony in progressive order beginning with scales and taking the student through all the fundamental work in chord formation and progression up to and including the dominant ninth chord.

The study of the subject presents to the pupil a system whereby all chords are classified under the three basic qualities: TONIC, DOMINANT, AND SUBDOMINANT. The grouping of all triads, seventh and ninth chords into this ternate relationship simplifies and co-ordinates their uses in such a way as to create a definite purpose and place for each harmony. It tends to develop variety, surety and continuity in the uses of these chords which not only stimulate the student to do original creative work, but also gives, to those who do not have this ambition, a grasp of the subject which will eventually facilitate the memorizing and analyzing of all compositions.

The lessons are so arranged that each triad and seventh chord is studied separately in its relation to the three primary harmonies. Each should be thoroughly understood before taking up the next in order, and the exercises at the end of each

chapter should be carefully worked out with a view to making each voice, especially the bass, as melodious as possible.

The old-fashioned figured bass is discarded entirely! Everything is done from the melodic point of view as being the most natural and logical, and consequently only melodies in the soprano are given to be harmonized. The figures, 1, 11, 7, 7^{I}, $7,^{II}$ 7^{III}, with the chord indication in the bass are all signs which the student needs to learn in order to do the exercises. Primary triads and the dominant seventh chord need no indication figures in the bass as their use is so obvious as not to require markings.

The author of this work realizes the great number of books on the subject already before the public, such as treatises, short-cuts, appreciations, mixtures of harmony and sight-reading, keyboard harmony, etc., and knows that another exposition of the subject is liable to meet with very little encouragement unless there is something radically different to present to the student. It is precisely with this in mind that he has the courage of his convictions and offers this series of lessons which he has tested through more than a dozen years of practical teaching experience. If this method of presentation of harmony serves to clarify the subject in its various phases to even a few, who will give serious thought and consideration to it, he will feel amply repaid for his labor.

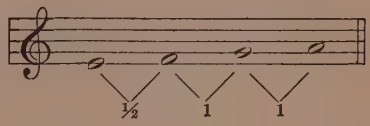
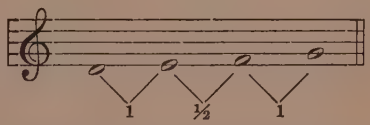
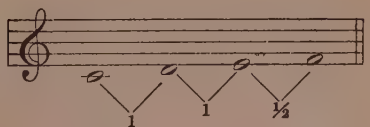
THE
FIRST FORTY LESSONS IN HARMONY

Lesson I

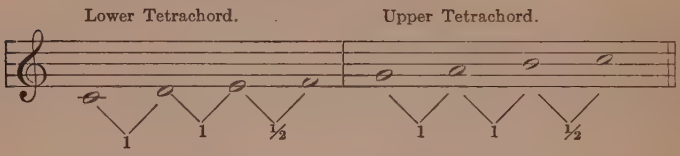
Major Scales. System of Tetrachords. Sharp Keys

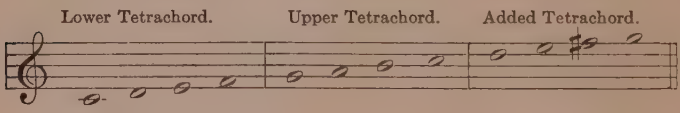
Scales:

The ancient Greeks tuned their lyre (ancient harp) according to a series of four tones called tetrachords. These tetrachords were arranged in two steps and a half-step, according to name. There were three commonly used:

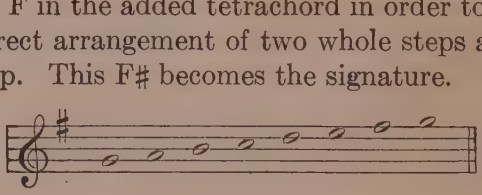
1, Dorian tetrachord:

2, Phrygian tetrachord:

3, Lydian tetrachord:

These three tetrachords, with but very little change, form the basis of our entire tonal system.

Scale:

A systematic arrangement of notes in steps and half-steps, eight in number, the eighth being a repetition of the first an octave higher. There are two varieties or modes: major and minor. The major scale is composed of the combination of two Lydian tetrachords, one above the other:

This natural or diatonic sequence of tones in steps and half-steps (according to the white keys of the piano, beginning on C) is the basis upon which all our scales are formed. By adding a tetrachord above the upper tretachord of the C major scale the G major scale results:

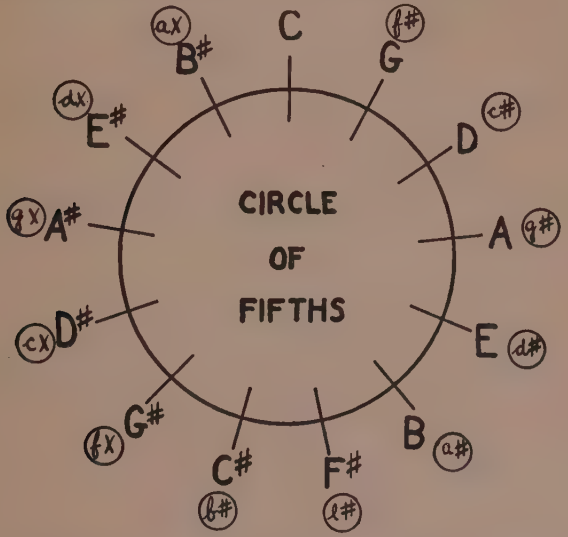


It will be noted that the seventh tone, F, is sharped. This is the first sharp scale as it becomes necessary to raise F in the added tetrachord in order to obtain the correct arrangement of two whole steps and one half-step. This F♯ becomes the signature.



By adding tetrachords above each other in this manner an entire circle of sharp keys can easily be worked out, returning finally to the starting-point, which in sharps, will be B♯ major. These scales will result: C, G, D, A, E, B, F♯, C♯, G♯, D♯, A♯, E♯, B♯.

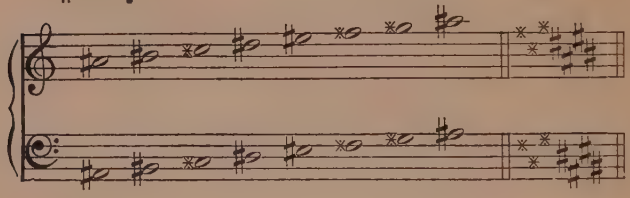
The new sharp is placed in the small circle beside the key into which it is introduced. In order to find the signature of any key, add the preceding sharps to the one last introduced and in the order in which they appear from the beginning.



The pupil is urged to write the sharp keys in the treble or G-clef as well as in the bass or F-clef. It is further advised, in writing the scales, that the

sharps be placed in front of the notes to which they belong, and not set in the signature except at the end of the scale, thus:

A♯ Major—



The double sharp: 𝄪 To cancel to one sharp: ♮♯

The triple sharp: ♯𝄪 To cancel to a double sharp: ♮𝄪

The double flat: 𝄫 To cancel to one flat: ♮♭

The triple flat: ♭𝄫 To cancel to a double flat: ♮𝄫

Definitions:

DIATONIC SCALE: eight tones to the octave without chromatic alteration,

CHROMATIC: with half-steps foreign to the given key.

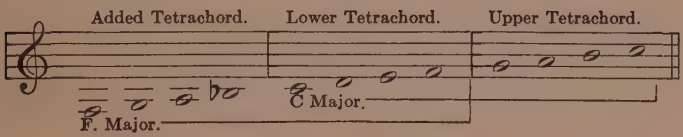
ACCIDENTALS: natural, ♮; sharp, ♯; flat, ♭; double sharp, 𝄪; double flats, 𝄫; triple sharps, ♯𝄪; triple flats, ♭𝄫 not found in the signature of the scale used.

ENHARMONIC: A different reading of the same tone without a perceptible change of sound, such as C♯ and D♭, or A♭ and G♯.

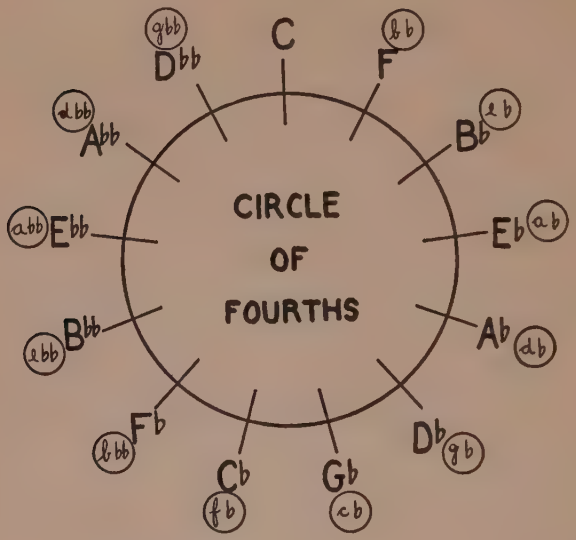
Lesson II

MAJOR SCALES. SYSTEM OF TETRACHORDS. FLAT KEYS

In order to build the sharp keys it was necessary to add tetrachords above the upper tetrachord of C major. To form the flat keys it is necessary to add the tetrachords below the lower tetrachord of C major, thus:



The fourth degree of the new tetrachord is lowered, or flatted, to form the correct arrangement. This B flat becomes the signature of the first flat key, F major. In forming tetrachords below this it will be found necessary to flat the fourth tone always, thus adding a new flat to each scale as the tetrachords are added. The following keys will result: F, B♭, E♭, A♭, D♭, G♭, C♭, F♭, B♭♭, E♭♭, A♭♭, and D♭♭ (enharmonic to C):



The flat keys should be written in both treble and bass clefs in the same manner in which the sharp keys were written. Both should be memorized, and, if possible, played upon the piano through several octaves.

THE NAMES OF THE DEGREES OF THE SCALE:

1st degree TONIC: keynote, indicating name of the scale.

5th degree DOMINANT: ruling note, governing the tonic.

4th degree SUBDOMINANT: next in importance to the dominant, the under-dominant to the tonic.

3rd degree MEDIANT: midway between the tonic and dominant, having somewhat the quality of each.

6th degree SUBMEDIANT: midway between the subdominant and upper tonic, having somewhat the quality of each.

2nd degree SUPERTONIC: tone above tonic.

7th degree LEADING-TONE: so called because of its tendency to lead to the tonic. The seventh degree is called Subtonic, when found a whole step below the tonic. (Explained later.)

Definitions:

CHROMATIC HALF-STEP: A scale-tone affected by a sharp or flat or other accidental, such as c to c♯, b to b♭, etc.

DIATONIC HALF-STEP: A natural half-step in the scale itself, such as b to c, e to f.

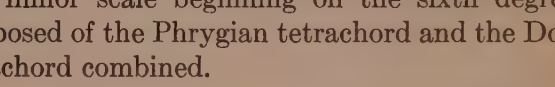
The chromatic half-step is the greater semitone, the diatonic half-step is the lesser semitone. By this is meant that from c to c♯ is a greater half-step than is c to d♭. This is easily proved through the number of vibrations of each, c♯ having somewhat over three vibrations more than d♭. This cannot be practically demonstrated upon the paino as one black key has to serve for both these tones, but this slight difference in pitch is possible on the violin or any stringed instrument played with a bow, or it may be noticed in the voice.

Lesson III

System of Tetrachords

Scales. Harmonic and Melodic Minor Keys

Each major key has its related, or relative, minor key, having the same signature but beginning on the sixth degree above the tonic of the major key, or, which is the same thing, the third degree below. The minor scale beginning on the sixth degree is composed of the Phrygian tetrachord and the Dorian tetrachord combined.

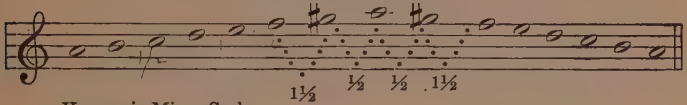


This scale is called the Aeolian or Normal Minor and is not used in this form except as the basis for forming the two practical minor scales used in the study of musical theory.

The two forms used are called the Harmonic minor, which is used in the study of Harmony, and the Melodic minor which is used in the study of counterpoint.

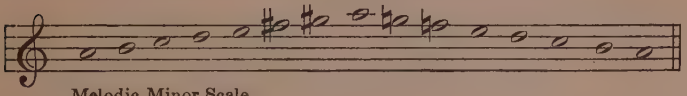
In the Harmonic Minor scale the 7th degree is raised one half-step chromatically in order to form a leading-tone which must be one half-step below the Tonic for practical harmonic purposes. This tone remains raised both in ascending and descend-

ing forming the interval of an augmented 2nd between the 6th and 7th degrees.



Harmonic Minor Scale.

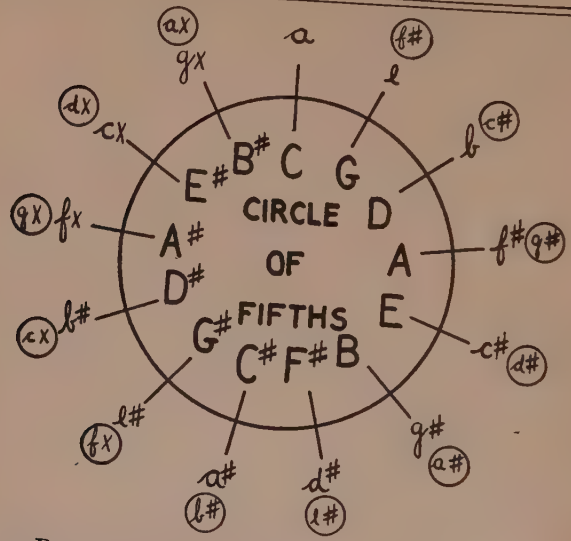
In the Melodic Minor Scale the sixth and seventh degrees are raised one half-step chromatically in ascending and cancelled in descending. Both degrees are raised to avoid the awkward interval of the augmented second found in the Harmonic form of the scale and which is not suited for melodic purposes. The cancelling of these two tones in descending is very natural, as, the moment the leading-tone has performed its service in ascending it is no longer required in descending, and consequently the 6th degree also reverts to its normal status.



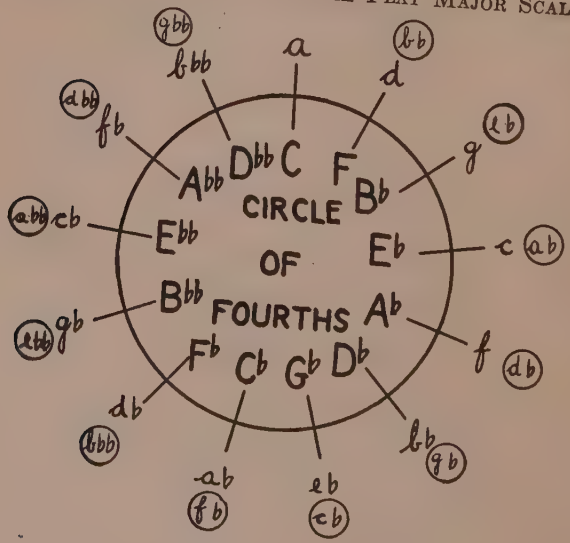
Melodic Minor Scale.

The Relative Minors to the Sharp Major Scales

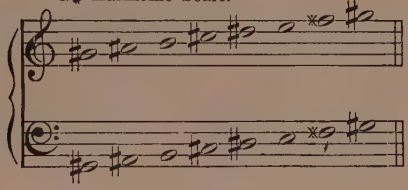
The minor keys are indicated by small letters, the major keys by capitals. The relative minor keys are on the outside of the circle. The Major keys, having the same signature, are on the inside.



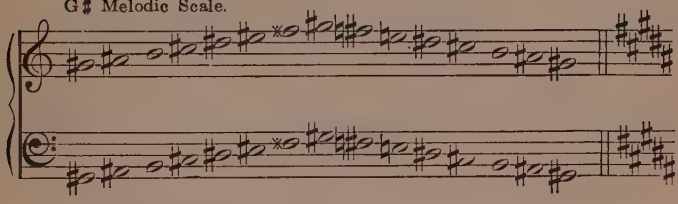
THE RELATIVE MINORS TO THE FLAT MAJOR SCALES



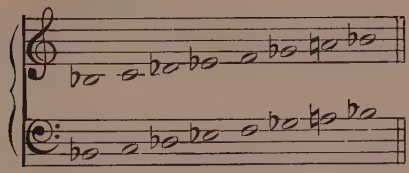
G♯ Harmonic Scale.



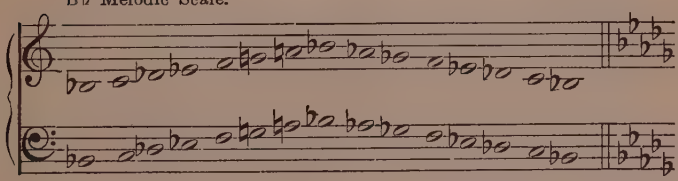
G♯ Melodic Scale.



B♭ Harmonic Scale.



B♭ Melodic Scale.



The minor scales should be as carefully written and studied as were the Major keys.

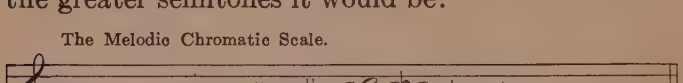
Definitions:

Enharmonic scales are those which sound the same as other scales but are differently written and have

different signatures. g× minor sounds the same as a minor. E♭♭ Major sounds the same as D Major, etc.

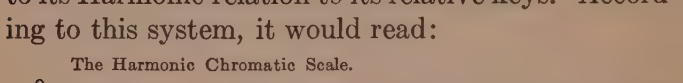
A Chromatic scale is one which includes all the semitones within the octave. Written according to the greater semitones it would be:

The Melodic Chromatic Scale.



The Chromatic scale may also be written according to its Harmonic relation to its relative keys. According to this system, it would read:

The Harmonic Chromatic Scale.

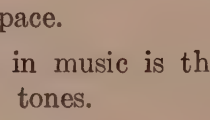


Lesson IV

Intervals. Simple Measurement

Interval is space.

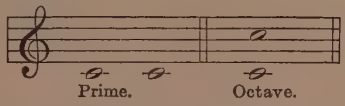
An interval in music is the space between and including two tones.

The interval 

embraces two staff degrees and consequently is a 2nd.

Intervals range from primes to octaves in space, primes being unison or two notes on the same staff

degree, and octaves being the same note repeated 8 degrees higher.

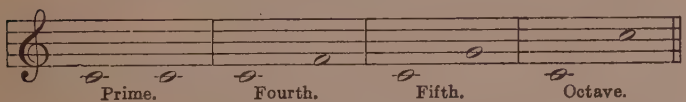


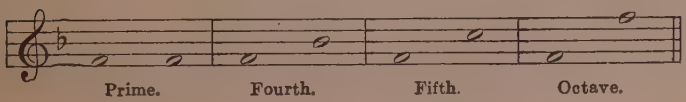
Intervals are classified in five qualities called Perfect, Major, minor, Augmented and diminished.

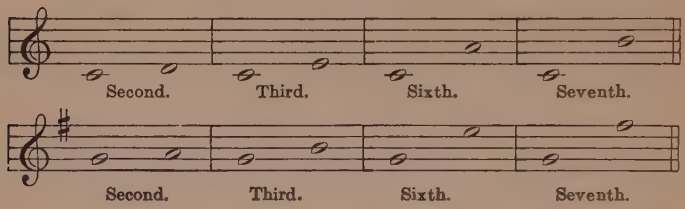
Abbreviations: P. perfect.
M. major.
m. minor.
A. augmented.
d. diminished.

Intervals are always measured from the key-note or tonic, and measuring upward from this tone:

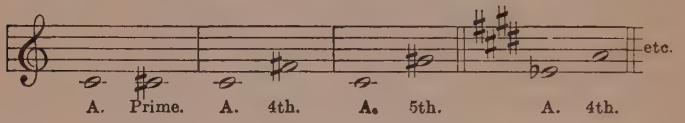
All	Primes, Fourths, Fifths, Octaves	are Perfect and may be altered to	Augumented and diminished.
All	Seconds, Thirds, Sixths, Sevenths	are Major and may be altered to	minor and Augmented or diminished. (not both)



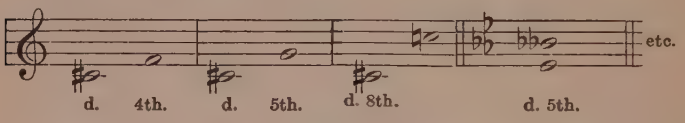




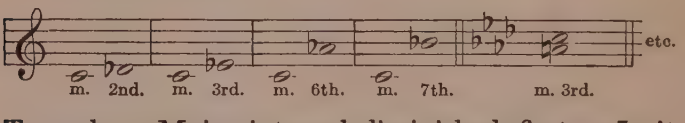
In order to make a Perfect interval augmented, expand it a chromatic half step:



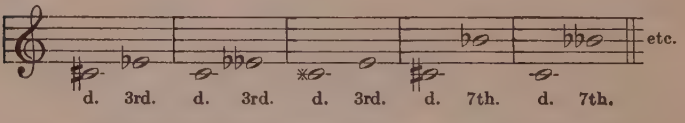
To make a Perfect interval diminished, contract it a chromatic half step:



To make a Major interval minor, contract it a chromatic half step:

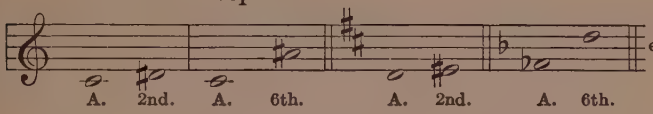


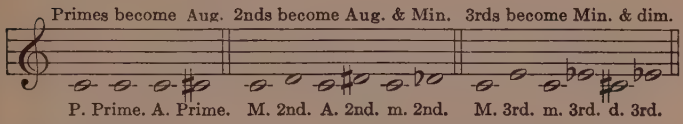
To make a Major interval diminished, first make it minor and then contract it another chromatic half step:

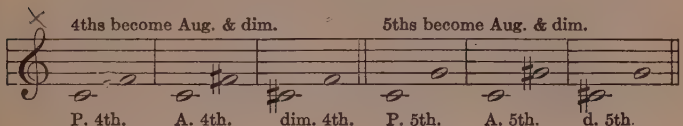


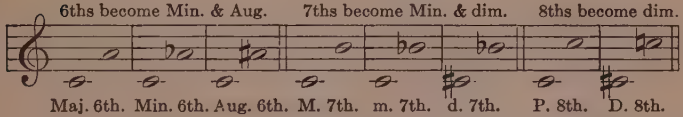
To make a Major interval Augmented, expand it a

chromatic half step:

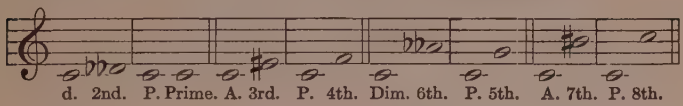




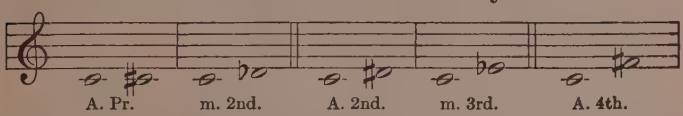


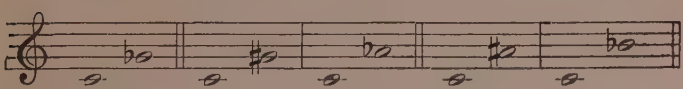


Any interval which sounds perfect after chromatic alteration should be changed to read perfect. The following intervals should be so considered:



Other intervals which sound the same after chromatic alteration should remain as they are:





Doubly-augmented and doubly-diminished intervals occur occasionally but are exceptional and do not warrant classification.

The measurement of intervals by half-steps is well to consider and is as follows:

Perfect Prime, embracing one staff-degree, contains no half-steps.

Augmented prime, embracing one staff-degree, contains 1 half-step.

Major second, embracing two staff-degrees, contains 2 half-steps.

Minor second, embracing two staff-degrees, contains 1 half-step.

Augmented second, embracing two staff-degrees, contains 3 half-steps.

Major third, embracing three staff-degrees, contains 4 half-steps.

Minor third, embracing three staff-degrees, contains 3 half-steps.

Diminished third, embracing three staff-degrees, contains 2 half-steps.

Perfect fourth, embracing four staff-degrees, contains 5 half-steps.

Augmented fourth, embracing four staff-degrees, contains 6 half-steps.

Diminished fourth, embracing four staff-degrees, contains 4 half-steps.

Perfect fifth, embracing five staff-degrees, contains 7 half-steps.

Augmented fifth, embracing five staff-degrees, contains 8 half-steps.

Diminished fifth, embracing five staff-degrees, contains 6 half-steps.

Major sixth, embracing six staff-degrees, contains 9 half-steps.

Minor sixth, embracing six staff-degrees, contains 8 half-steps.

Augmented sixth, embracing six staff-degrees, contains 10 half-steps.

Major seventh, embracing seven staff-degrees, contains 11 half-steps.

Minor seventh, embracing seven staff-degrees, contains 10 half-steps.

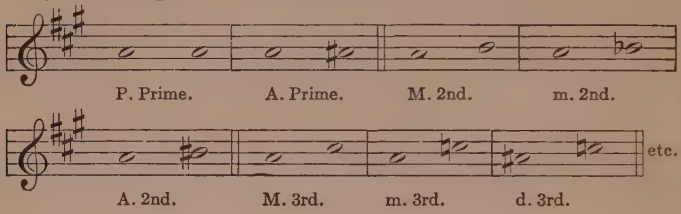
Diminished seventh, embracing seven staff-degrees, contains 9 half-steps.

Perfect octave, embracing eight staff-degrees, contains 12 half-steps.

Diminished octave, embracing eight staff-degrees, contains 11 half-steps.

The student should practice writing intervals in the different keys until proficiency is attained. The student may begin with the following keys, G, F, D, B♭, B, D♭, C♯, G♭. They should be written in the same manner in which they are found in the C

major example. For instance:



Definitions:

Sound is the regular or irregular recurring vibratory disturbances of the air into air-waves. When these vibrations are regular, a musical tone is heard; otherwise a noise results.

To be heard as a tone, sound must have a vibration number of at least 16 to 20 vibrations per second. This is the lowest audible tone. Tones of 12,000 vibrations per second are extremely shrill and unpleasant, and above this number of vibrations they become inaudible. A Consonance is a pleasing agreement of musical sounds heard simultaneously.

Perfect Consonances: Perfect prime, 4th, 5th and 8th.

Imperfect Consonances: Major and minor 3rds and 6ths.

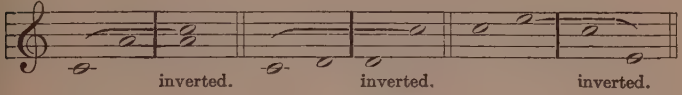
A dissonance is an unrestful combination of sounds needing a consonance to follow for the effect of completeness.

Dissonances: All 2nds, 7ths, and augmented or diminished intervals.

Lesson V

Intervals. Inverted Measurement

Inversion results when the upper note of an interval is placed an octave below or the lower note is placed an octave above.



When inverted, intervals assume a new measurement and change their character, with one exception: perfect intervals always remain perfect. All other intervals assume an opposite character.

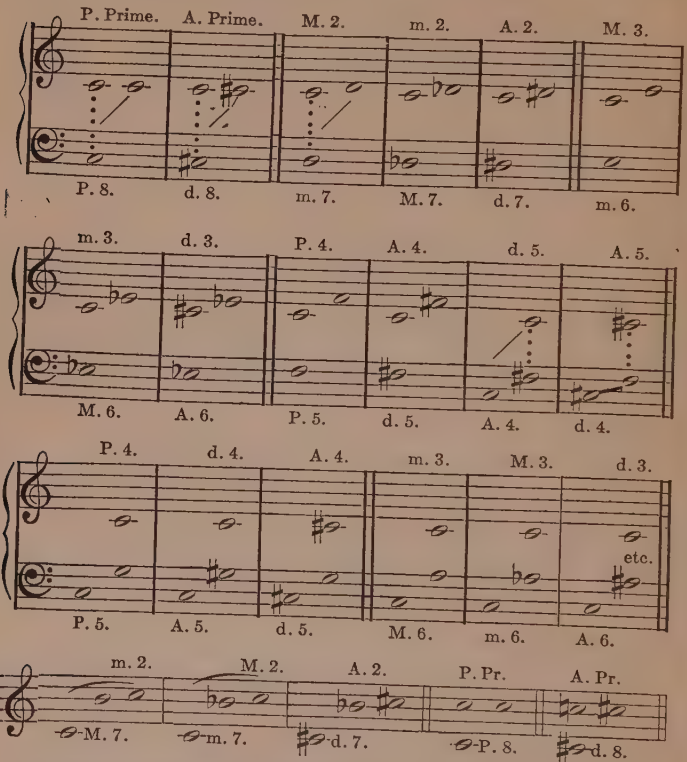
Major, when inverted, becomes minor.
Minor becomes major.
Diminished becomes augmented.
Augmented becomes diminished.
Perfect remains perfect.

The distances when inverted:

Primes become octaves.
2ds become 7ths.
3ds become 6ths.
4ths become 5ths.
5ths become 4ths.
6ths become 3rds.
7ths become 2nds.
Octaves become primes.

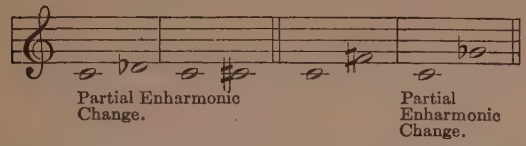
In practicing the inversions of intervals, it is

always a good plan to use the bass or F clef as well as the treble or G clef.

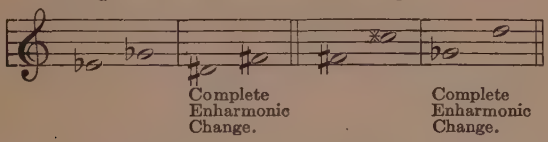

P. Prime. A. Prime. M. 2. m. 2. A. 2. M. 3.
P. 8. d. 8. m. 7. M. 7. d. 7. m. 6.
m. 3. d. 3. P. 4. A. 4. d. 5. A. 5.
M. 6. A. 6. P. 5. d. 5. A. 4. d. 4.
P. 4. d. 4. A. 4. m. 3. M. 3. d. 3.
etc.
P. 5. A. 5. d. 5. M. 6. m. 6. A. 6.
m. 2. M. 2. A. 2. P. Pr. A. Pr.
M. 7. m. 7. d. 7. P. 8. d. 8.

Write the inverted measurement of all the intervals in the keys of A, E♭, E, C♭, D, F♯.

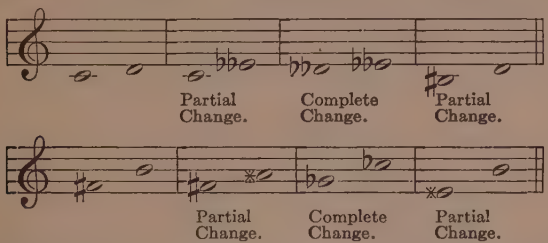
When intervals become diatonically changed without any difference in sound, this change is called enharmonic. When one note of an interval is so changed, it is called a partial enharmonic change.



When both notes of an interval are changed, it is called a complete enharmonic change.



An interval may be written in four different ways:



Write each interval in the key of F♯ in four different ways.

Lesson VI

Intervals Occurring the Same in Different Keys

The same interval is often found in a number of keys without enharmonic alterations. For instance, a major second is found in eight different keys including both the major and harmonic minor. As an example take the major second, c to d.

It is found in C, c, 1st and 2nd degrees—
B♭, 2d and 3rd degrees—
a, 3d and 4th degrees—
G, g, 4th and 5th degrees—
F, 5th and 6th degrees—
E♭, 6th and 7th degrees.

Perfect prime: found in 13 different keys.
Augmented prime: found in no key.
Major second: found in 8 different keys.
Minor second: found in 5 different keys.
Augmented second: found in 1 key.
Major third: found in 6 different keys.
Minor third: found in 7 different keys.
Perfect fourth: found in 10 different keys.
Augmented fourth: found in 2 different keys.
Diminished fourth: found in 1 key.
Perfect fifth: found in 10 keys.
Augmented fifth: found in 1 key.
Major sixth: found in 7 keys.
Minor sixth: found in 6 keys.
Augmented sixth: found in no key.
Major seventh: found in 5 keys.
Minor seventh: found in 8 keys.
Diminished seventh: found in 1 key.

In determining the number of keys in which these are found, only the major and harmonic minor scales are used. The melodic minor scale is not used because of its unstable nature. It may be used if desired, thus augmenting the number of keys in which each interval is found. In the practice of

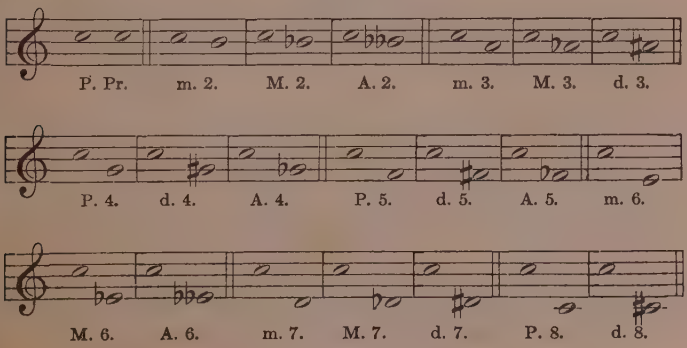
finding the various intervals in different keys, the student should use his written scales as an aid to confirmation. In this search for ambiguity of interval relationship, the process of going through the circles of scales will give a more intimate acquaintanceship with both scales and intervals than any other process of study. It is, therefore, especially recommended and should be conscientiously applied.

Find the number of keys in which all the intervals in E and D are found.

Lesson VII

Downward and Mental Measurements

In reading intervals downward, consider the top note as the tonic instead of the lower note. In this measurement, omit the augmented prime as, this does not occur within the octave. Then simply apply the inverted measurements.



The mental process of reading intervals should be acquired so that a quick and accurate measurement will be obtained. This should prove easy after a careful study of the preceding chapters.

In measuring intervals, the lower note is always considered the basis from which the measurement is made. Regard that note as the fundamental or tonic note of the scale, regardless of signature. Then consider whether or not the interval being measured is a natural interval according to the signature of the lower tone. If it is, then it is naturally major or perfect; if it is not, then its status can readily be deduced by first considering what it would be according to the nearest natural interval.

For instance: the interval e flat to c sharp is to be considered. The interval is a sixth; c sharp does not occur in the signature of the lower note, e flat; the natural tone in the scale is c natural; consequently, the interval without the sharp is a major sixth, and with the sharp is an augmented sixth.

In this manner, with a little practice, intervals can be easily measured. To summarize, the study of intervals should be rigidly adhered to until thoroughly understood. The importance of intervalic measurement finds its value in chord formation and melody writing. It is not alone necessary in the study of harmony, but is indispensable to the student of voice or of any musical instrument.

Lesson VIII

Triads. Formation. Primary and Secondary Triads

A chord is the combination of three or more musical sounds varying in pitch and heard simultaneously. When all the intervals of a chord are consonant, it is called a CONCORD.

When one or more intervals are dissonant, it is called a DISCORD.

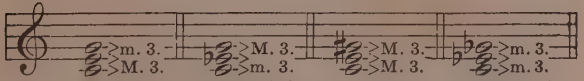
Concords are independent, that is, they are sufficient in themselves and can stand alone.

Discords are dependent and must resolve or progress to a concord.

A TRIAD is a chord composed of three notes built upward in thirds from a given fundamental called the root. There are four varieties:

CONCORDS
1. MAJOR Triad, composed of a major third and a minor third.
2. MINOR Triad, composed of a minor third and a major third.

DISCORDS
3. AUGMENTED Triad, composed of two major thirds.
4. DIMINISHED Triad, composed of two minor thirds.



Major Triad. Minor Triad. Aug. Triad. Dim. Triad.

To make a Major triad minor, lower the third one half step chromatically, thus reversing the order of thirds.

To make a Major triad augmented, raise the fifth one half step chromatically, thus making the thirds major.

To make a Major triad diminished, first make it minor and then reduce the fifth one half step chromatically, making both thirds minor.

It will be seen that four kinds of triads may be formed by these various combinations. The triads, as they exist in the major scale, are named according to the degree on which each is formed.

Triads of the Major Scale

Triad formed on the 1st degree, Tonic triad, Major.

Triad formed on the 2nd degree, Super-tonic, Minor.

Triad formed on the 3rd degree, Mediant, Minor.

Triad formed on the 4th degree, Sub-dominant, Major.

Triad formed on the 5th degree, Dominant, Major.

Triad formed on the 6th degree, Sub-mediant, Minor.

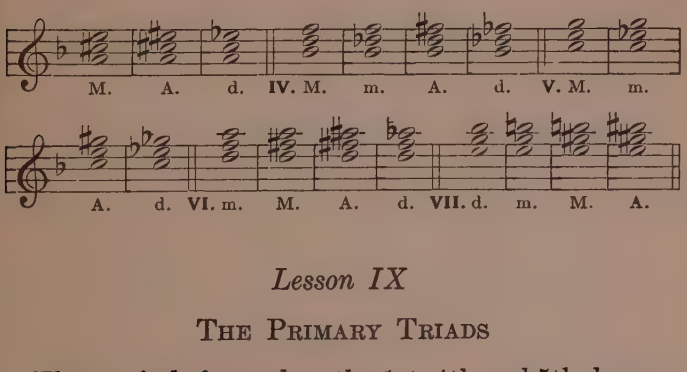
Triad formed on the 7th degree, Leading-tone, Diminished.

Triads of the Harmonic Minor Scale

Triad formed on the 1st degree, Minor.
Triad formed on the 2nd degree, Diminished.
Triad formed on the 3rd degree, Augmented.
Triad formed on the 4th degree, Minor.
Triad formed on the 5th degree, Major.
Triad formed on the 6th degree, Major.
Triad formed on the 7th degree, Diminished.

Form four triads on each degree of the following scales: G, B♭, A, E♭, d, e, f, c♯.

Example:



Lesson IX

The Primary Triads

Those triads formed on the 1st, 4th and 5th degrees of the scale, Tonic, Sub-dominant and Dominant, are called the Primary Triads. These are the most important triads because the most definite in the harmonizing of melodies. They are necessary in

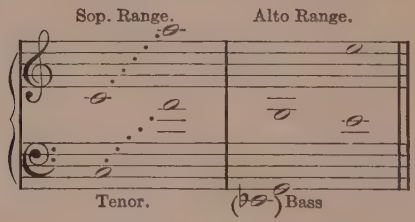
order to form the cadences which are the points of repose. They contain the entire scale in the aggregation of tones of which they are composed, and consequently are complete in themselves for the harmonization of melodies. Furthermore, they establish the tonality definitely and are the foundation chords of every composition.

The basis of composition is what is known as four-part writing. This is simply the employment of four parts or voices called soprano, alto, tenor, and bass. The ranges of these voices in four-part writing are:

SOPRANO: from middle C to A above the treble clef.

ALTO: from G below middle C to E on 4th space of treble clef.

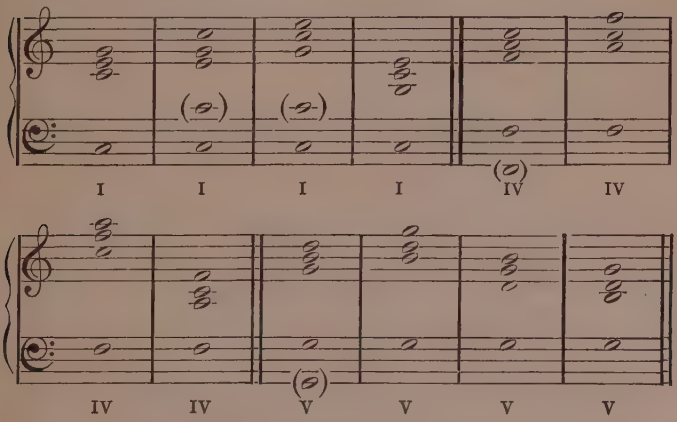
TENOR: same range as Soprano, except an octave lower.

BASS: same range as Alto, except an octave lower.

The above ranges are based on choral singing and not on solo possibility, and consequently are somewhat more conservative than solo voices are expected to be.

As four voices must be supplied with material with which to be employed, it becomes necessary to double one of the notes of the triad. The third is the least suitable to double. The fifth may be doubled when an occasion arises. The best note to double is the root.

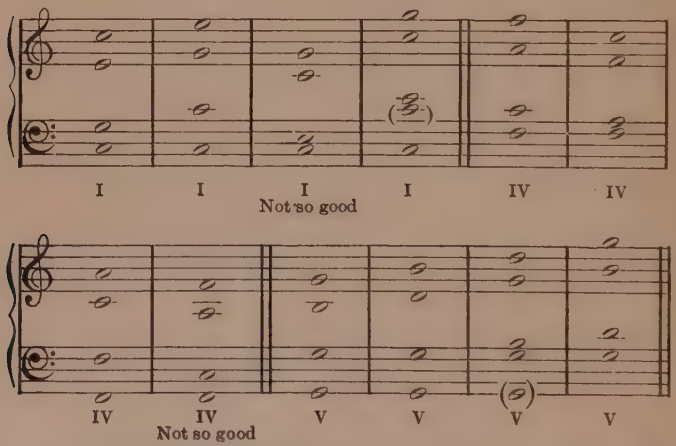
In writing triads, the figures I, IV and V written under the chords indicate the degrees on which they are formed, and all exercises in the future should be figured carefully as this will be of great assistance in determining correct or incorrect progressions.

Close harmony, or position, results when three upper voices are found within the space of an octave on the treble clef:



Open Harmony, or position, is where two voices are written on each clef in such a manner that the notes of the chord are more evenly divided than in

close position. The three upper notes are no longer required to remain within the range of one octave, in fact, open position means the separation of these notes over a greater space than the octave. This does not mean that the three upper voices must continually remain so separated as often they will actually be in close position though written on both clefs.



The alto and tenor should not separate more than an octave. The bass and tenor may separate a tenth or even more but should not remain so through more than a few chords.

Write the various positions of the primary triads in the keys of F, A, d, b, using both the close and open harmony, indicating by figures in the bass the degrees on which the chords are formed. In the minor exercises the student must remember that the

Harmonic minor scale only is used and this will necessitate the raising of the seventh degree whenever it appears in the triad formation.

Lesson X

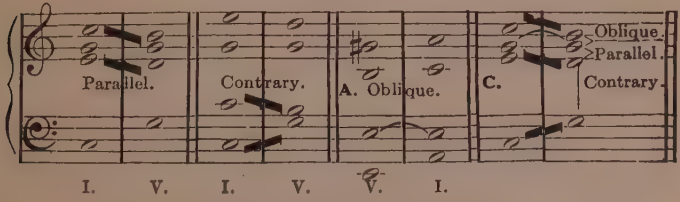
Motion of Voices

In combining triads into an exercise, in which each chord must be considered in its relationship to both its preceding and succeeding chords, the direction that each note takes must be carefully observed. This is called voice leading or motion of voices.

When two voices move in the same general direction they are said to move in parallel motion.

When two voices move in opposite directions contrary motion results. This is the strongest voice leading.

When a voice remains stationary, on the same degree, while other voices move, oblique motion results. Examples of the three kinds of motion:



At least two kinds of motion are necessary in any progression of the Primary triads, otherwise incorrect progressions will result.

Incorrect progressions:

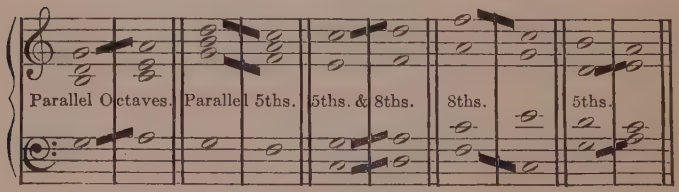
PARALLEL OCTAVES: Parallel octaves are the results of perfect octaves moving in parallel motion in the same voices.

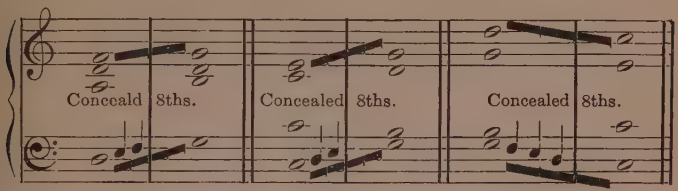
PARALLEL FIFTHS: Parallel fifths are the result of perfect fifths moving in parallel motion in the same voices. Both parallel octaves and fifths should always be avoided as contrary to the laws of four-part writing. They are disagreeable to the well-trained ear, being empty in euphony as well as weak in balance of voice leading.

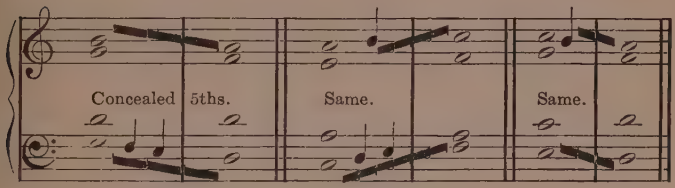
CONCEALED OCTAVES (sometimes called HIDDEN or COVERED octaves): When two voices, not an octave apart, move in parallel motion into a perfect octave, concealed octaves result.

CONCEALED FIFTHS: When two voices, not a fifth apart, move in parallel motion into a perfect fifth, concealed fifths result. Concealed octaves and fifths are disagreeable in outside parts ONLY, and, when using the primary triads, these cannot always be avoided and need not necessarily be too strongly censored.

Examples of parallel octaves and fifths:

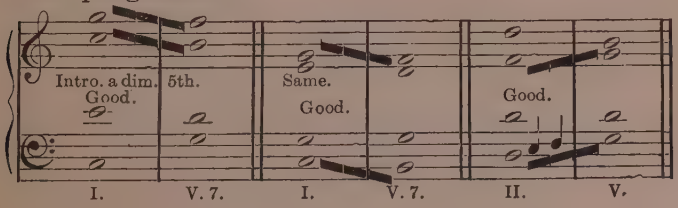


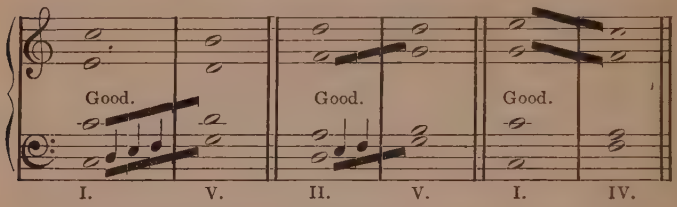




Concealed octaves usually result when one part approaches the perfect octave by a step progression and the other part by a skip. If the approach is by a half-step and skip the progression is always good. The most noticeable concealed octaves, which are never allowable, is when the perfect octave is approached by two skips.

When the second fifth of parallel fifths is diminished, the progression may stand. There are also progressions into perfect fifths which, through custom, have come to be recognized as passable, and these will be explained as they occur in the course of chord progressions.

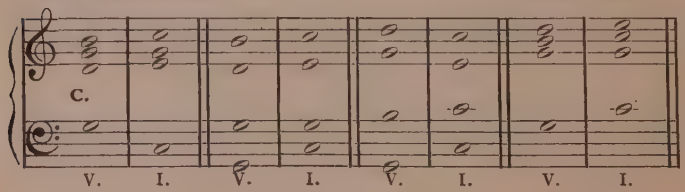


Concealed 5ths and 8ths may be used between one inside and one outside voice.

Concealed octaves and fifths may be corrected by having the bass move in contrary motion to the involved note above.

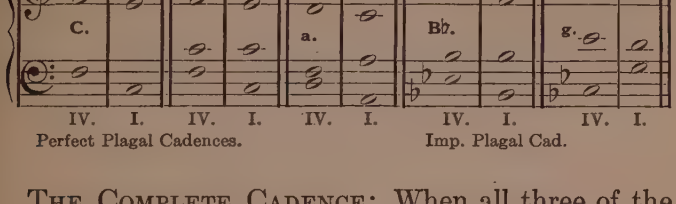
Cadences: A cadence is the progression of two or more chords at the close of a musical sentence or composition resulting in a definite ending. The literal meaning of cadence (cado) is to drop or fall, specifically, a subsiding of melody or chord sequence to a harmonic close or point of rest.

The Authentic Cadence: There are three kinds of cadences commonly used to end an exercise or composition. The commonest of these is the Authentic cadence, which is the progression of the Dominant triad to the Tonic triad. If the tonic note is found in both the outside voices of the final chord the Perfect-authentic cadence results. Otherwise it is called an Imperfect Authentic Cadence.

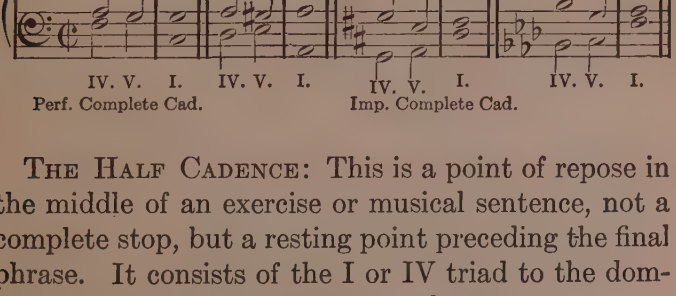
Perf. Authentic Cad. Imperf. Auth.



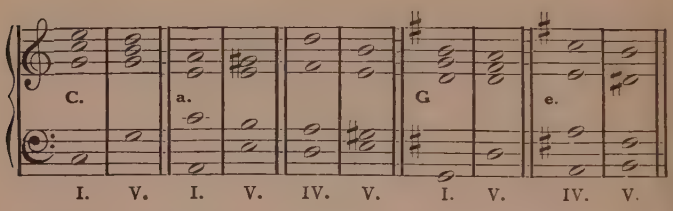
THE PLAGAL CADENCE: The progression of the Sub-dominant triad to the Tonic is called the Plagal cadence. It also is perfect or imperfect according to the outside voices.



THE COMPLETE CADENCE: When all three of the primary triads are used to form the close, Sub-Dominant, Dominant and Tonic, it is called a Complete cadence, as it contains the entire scale in its combination.



THE HALF CADENCE: This is a point of repose in the middle of an exercise or musical sentence, not a complete stop, but a resting point preceding the final phrase. It consists of the I or IV triad to the dominant triad. The half-cadence cadences:



Write four different cadences in the following keys: E, d, A, f♯, A♭, e, B, d♯.

Definitions: The smallest space in which a complete musical thought can be expressed is called a Period or Sentence. The sentence commonly used contains eight measures. The first phrase of four measures usually ends with a half cadence, the second phrase with a full cadence to the tonic. The first phrase is called the Thesis, the second, or complementary phrase, the Antithesis.

Lesson XI

Beginning of Simple Harmonization of the Primary Triads

In starting the harmonization of simple melodies it is well to consider the following six rules as being of real importance to the ultimate success in correct and modern harmonization:

1. Do not repeat the same chord in succession unless necessary, and it will rarely be necessary.

2. Avoid the progression of the Dom. to the Subdom.

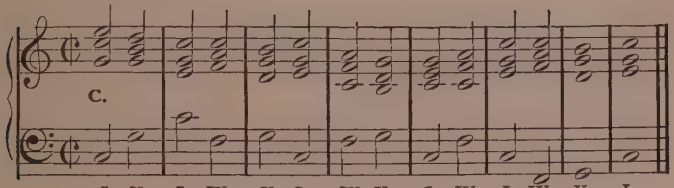
3. Never allow all four voices to move in parallel motion.

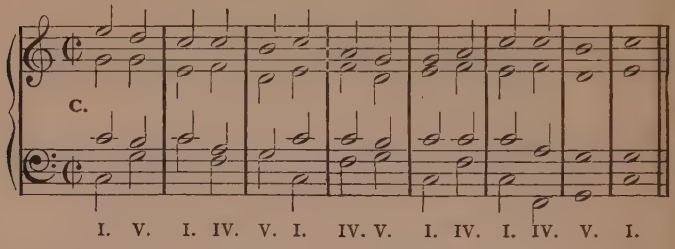
4. At present, the 1st and last chords must be Tonic, and the chord preceding the last chord must be either Dom. or Subdom. in order to form the cadence.

5. The bass should not move melodically in 4ths or 5ths in the same direction. Also avoid the skip of a 7th in the bass.

6. When there is a note in common between two chords and in the same voice, the bass may then move up or down, according to what may follow. Diatonic melody is best; keep this in mind. With the primary triads it is impossible to make the bass conform to diatonic melody of more than three notes in succession, but one can avoid too many skips in the same direction by exercising a little care.

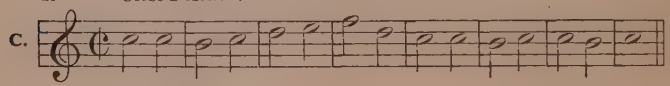
Example of harmonization with primary triads in close position:



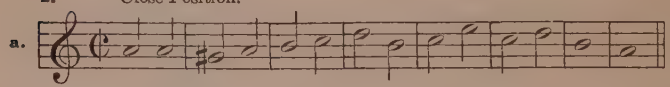
Harmonization of the same melody with primary triads in open position:

It will be noted that in using the open position, the fifth of triads has to be omitted occasionally. This is necessary and will depend entirely on the preceding or succeeding chords and their leading of voices. It will also be noted that in measures 4 and 5 the four voices are actually in close postion except for the fact that the distribution of notes suggests the open position. This, too, is often necessary.

Harmonize the following melodies using only the primary triads with root in the bass.

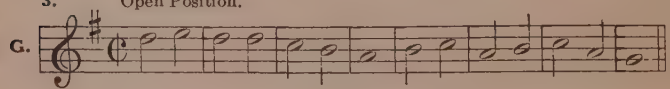
1. Close Position.



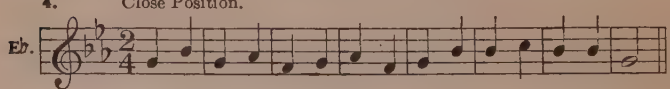
2. Close Position.

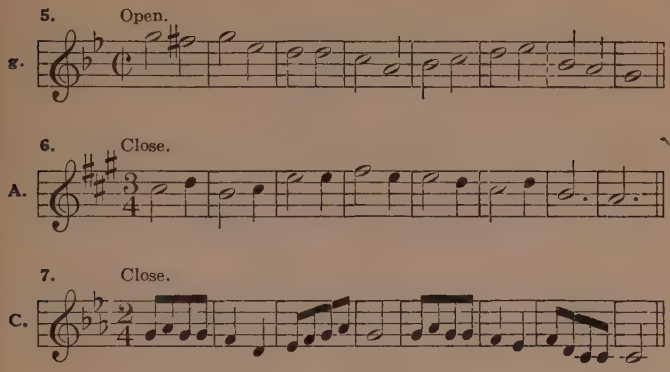


3. Open Position.



4. Close Position.





These exercises should be supplemented by original exercises composed by the pupil. It is advisable to write eight measure melodies for harmonization with the half cadence in the fourth measure, as the sense of melodic balance should be exercised as well as the feeling of naturalness in chord-progression. Any metrical divison may be employed, but it is suggested that common time be first used with two half-note chords to the measure, the last measure being a whole-note chord. Practice ending with the Plagal as well as the Authentic cadence both in major and minor.

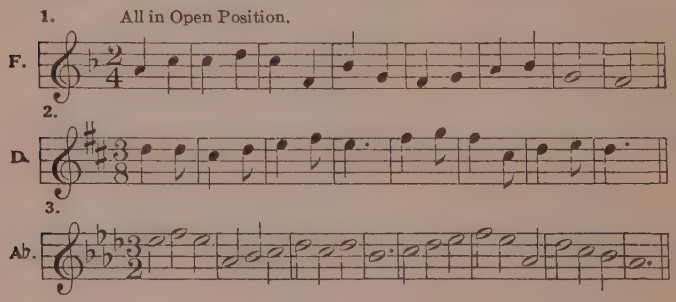
Definition:

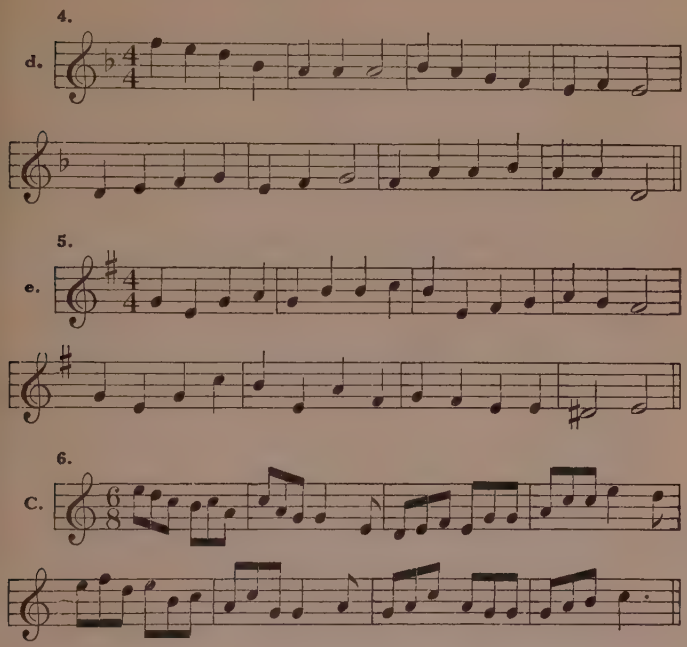
TIME or METER is the systematic arrangement of notes in a measure, the first part of which has a strong accent and is called the Thesis, the second a weak or no accent called the Arsis.

Lesson XII

Additional Exercises With Primary Triads

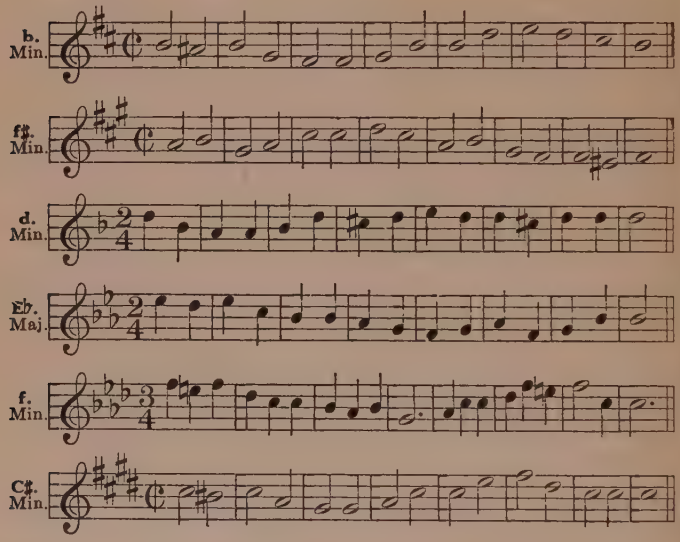
The object of these extra exercises is to have the student practice more carefully the doubling of the fifth of triads as well as the tripling of the root. These six exercises were especially designed for this purpose. It will not be possible to avoid an occasional concealed fifth or octave, but less attention is paid to these now than will be later; however, they should be avoided where the changing of the bass line will correct them. Another thing to be carefully noted in these exercises is the leading of each individual voice. Make each as melodious as the material used will permit. There are but three notes to be used in the bass, the three fundamentals of the primary triads, consequently a certain sense of monotony will develop, but by carefully trying different leadings of these three notes and at the same time avoiding skipping two fourths or fifths in succession, as well as the interval of a seventh, surprisingly pleasing effects may be obtained.





At this point in the study of harmony, the student should consider it a part of each lesson to do some original work. This is strongly urged, even though it be but a few exercises. A more certain and practical understanding of the subject is bound to result through a more intimate and individual study of each phase as it appears. The exercises alone are not sufficient. They simply illustrate the point to be considered and do not pretend to cover the entire scope of possibilities that each new added thought offers. It is for this reason that the student should delve further into what is offered.

Extra Exercises.



Lesson XIII

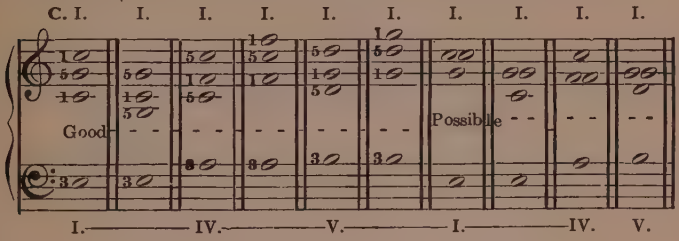
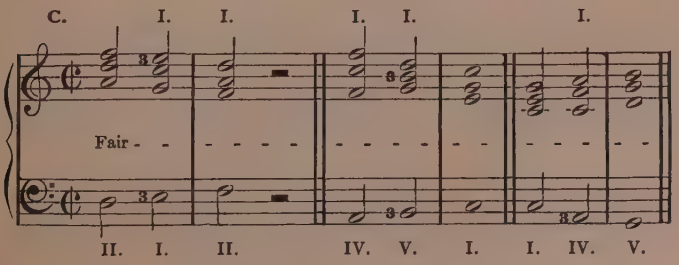
The Inversions of the Primary Triads

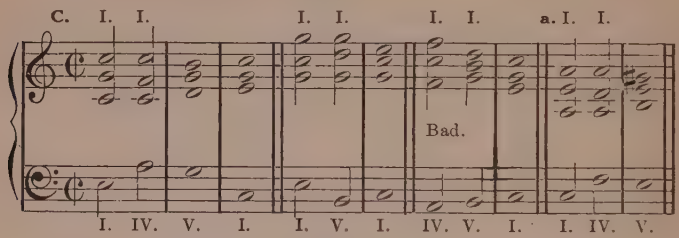
In harmonizing the Primary Triads in root position the monotony of the bass line was discussed. This can be overcome to a great extent through the inversion of these triads, that is, by placing a note other than the root in the bass.

There are two inversions possible.

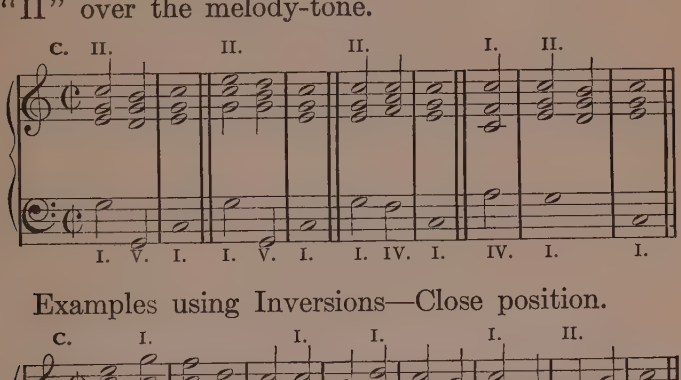
First Inversion, indicated by "I" over the melody-tone of the chord to be inverted. In the first inversion, put the third of the triad in the bass

and double either the root or fifth. All the primary triads may be used in the first inversion.

If the exercise is in close position, a good general rule to follow is: Double the melody-tone, which should be root or fifth, by placing the same note an octave below; place the third in the bass and the remaining note between the doubled melody-tone.

The occasional doubling of the third in the first inversion is possible if the doubled third is at least an octave apart and moves in contrary motion and in diatonic progression. The doubling of the third is harsher in effect than the doubling of the root or fifth and should be the exception rather than the rule.

These progressions will not occur frequently at present as they usually involve triads, such as the supertonic, which have not been introduced, as yet, into the work.

A chord may now be repeated if one of the two chords is inverted. The inversion of the triad gives the chord a new position and a movement in the bass line which is necessary. Do not allow two first inversions in succession unless the third of one of the chords is doubled, or unless the melody-tone is the same for both chords.

Second Inversion: The second inversion of a triad occurs when the fifth of the chord is placed in the bass. The second inversion is the weakest position of the triad, as the weakest note is in the sustaining voice, the bass. This inversion should be used with careful discrimination for this reason: its best use is with the tonic triad and then only in the cadence preceding the sub-dominant or dominant, and in anticipation of the final chord. The weakness of the tonic second inversion adds to the strength of the final tonic chord and helps give to the close a feeling of finality.

In writing the second inversion, simply put the fifth of the chord in the bass. This doubles the fifth of the chord which is the best note to double, although, if necessary, the root or the third, may be doubled. The second inversion is indicated by "II" over the melody-tone.

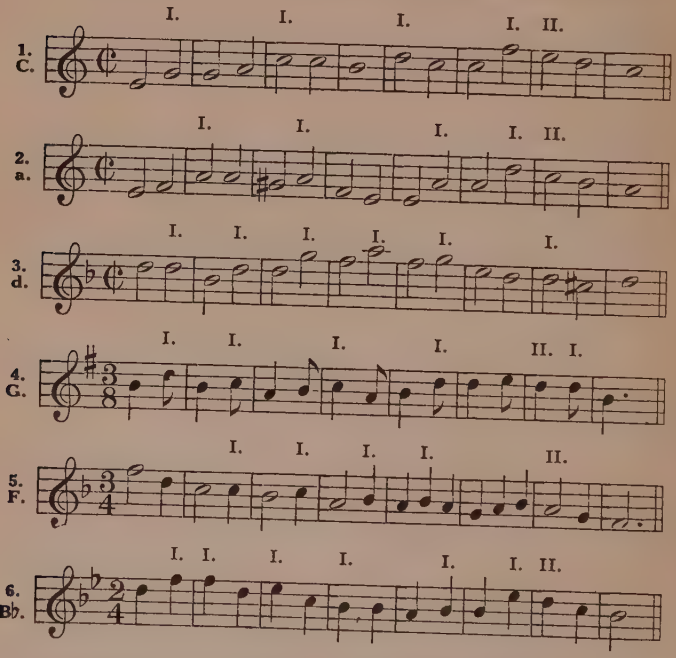


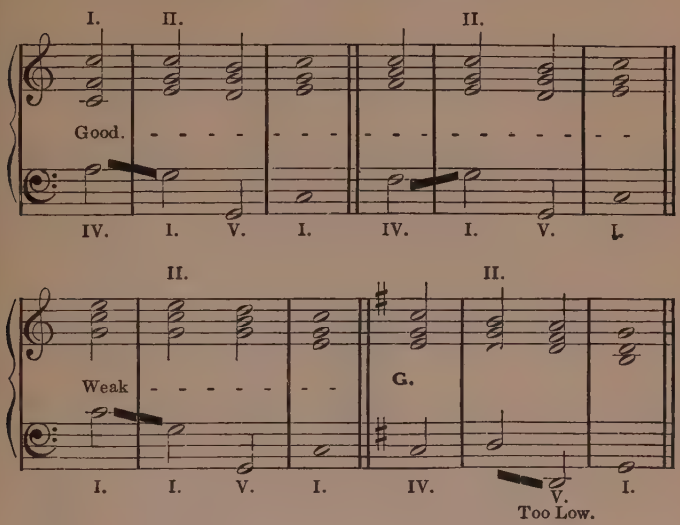
Examples using Inversions—Close position.

The tonic second inversion is best preceded by a sub-dominant triad in root position or first inversion

rather than by a tonic triad. It is also well to have the second inversion fall on the strong accent when there is but one accent in the measure. If compound time is used it may fall on the arsis of the measure.

The following exercises are all in close position:



The drop of an octave in the bass preceding the final measure does not constitute motion, but simply a change of register of the same note and may be used freely provided it is kept within range and is approached from one tone above the upper note of the octave or from below the top note:

The melody should suggest the inversions, and a careful study of the melodies given will disclose their uses. It will be noted in the first melody that the 1st inversions are always a result of a skip of a 3d or 4th upward and that the top note of the skip is a first inversion. This is the general rule to follow but care must be taken to see if the top note of the skip is the root or fifth of the triad, for otherwise a first inversion would not be possible.

A first inversion may also be used for the top note of a skip downward in the melody. (See example 6, second measure.)

Also for a repeated note. (See example 5, second measure.) The second inversion is usually approached from one note above. (See examples 1, 2, 4, 5, 6.)

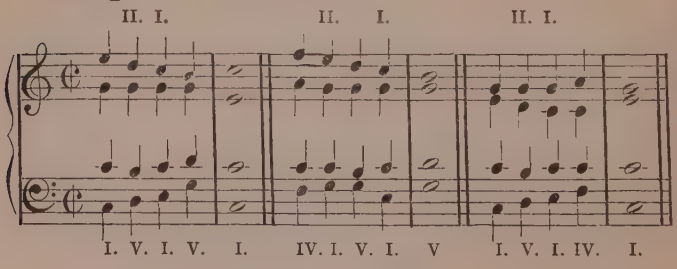
Lesson XIV

The Inversion of the Primary Triads

In this lesson, a careful study of the uses of the inverted primary triads in open position is made. The same suggestion for their uses in close position will not always hold good, but in most instances, the doubling of the melody-tone in the octave will be possible. It will be seen that in open position, first inversions will follow each other with greater freedom than in close position, and immediately following each other on different degrees without resulting in incorrect progressions. This is entirely due to the open position which permits of great flexibility in voice leading, thus overcoming innumerable difficulties.

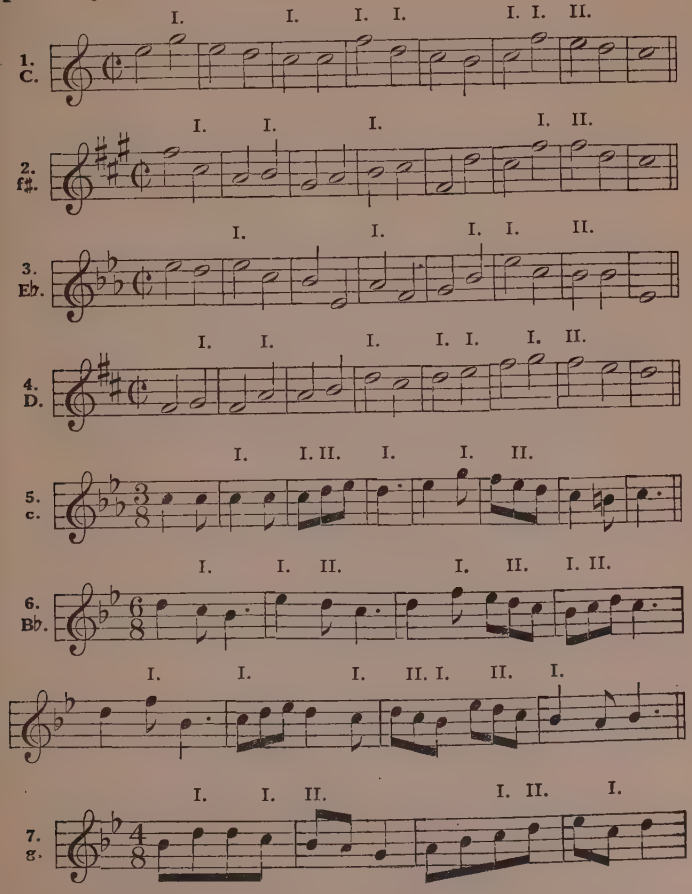
The second inversions of the tonic and dominant triads in the nature of unimportant passing chords are also introduced. These may be used only as passing chords and in diatonic contrary motion. They usually fall on the weak accent unless in a small cadence inside the melody, as, for instance, in example 6, second measure.

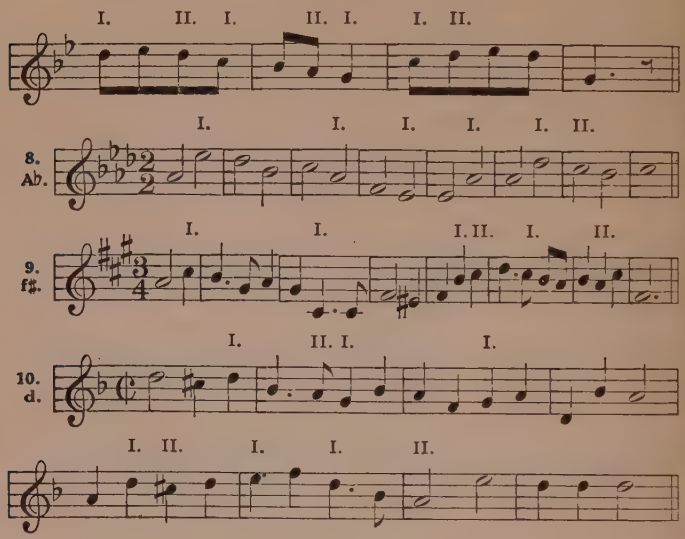
Passing second inversions:



These are not considered strong progressions, but are possible, especially as a filling-in chord in a passage of eighth or quarter notes.

Exercises in open position using inversions of primary triads:



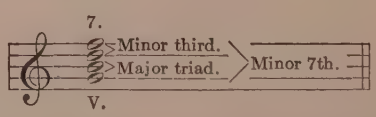


Lessons XV and XVI

The Dominant Seventh Chord

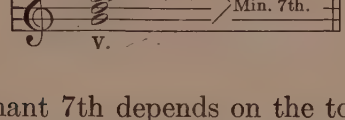
Formation and resolution

The most important chord in music, next to the tonic, is the dominant seventh chord (V_7). This chord belongs to the primary chords, being composed of the dominant triad with minor third added above. It contains a major triad and, in all, a minor seventh:



It embodies in its formation two dissonances, the

diminished fifth and minor seventh, and consequently such a chord is a dissonance or dependent chord relying on a following consonant chord for resolution.



The dominant 7th depends on the tonic triad for resolution. All factors, 1st (root), 3rd, 5th and 7th, must move according to their natural tendencies:

1st, if in the bass, moves up four scale degrees or down five.

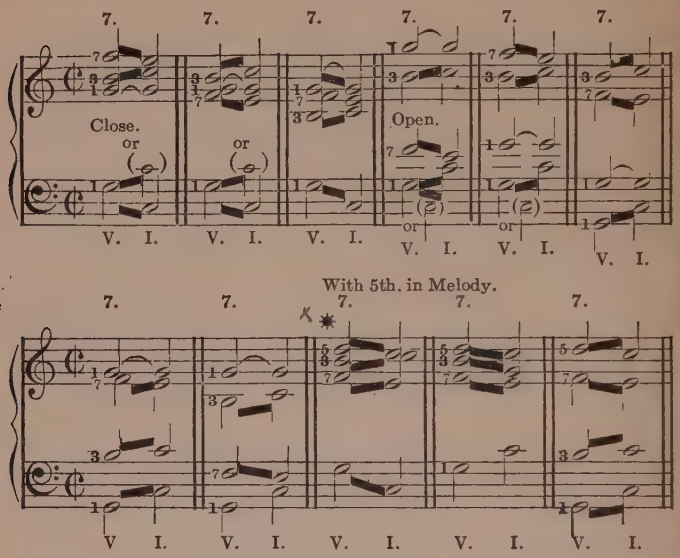
1st, if in any other voice, usually ties over to same note in the tonic triad or may move up four degrees or down five.

3rd, being the leading-tone moves up to its tendency-tone, the tonic.

5th, more or less a free factor, may move up or down, or be omitted, or even skip occasionally.

7th, down to the next degree as the minor seventh calls for contraction to the next degree.

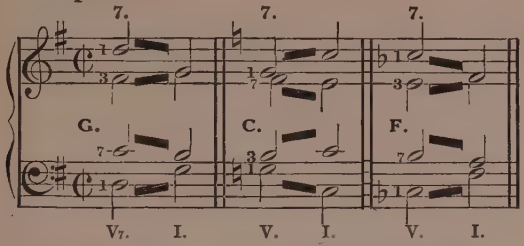
When writing the V_7 chord in root position, it is generally well to double the root and omit the fifth whenever possible. In so doing a complete tonic triad will result.

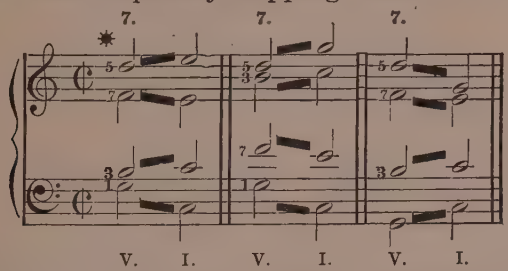
Different positions of the V_7 with root doubled, and resolutions of same; root always in the bass:

*Sometimes, when the 5th is the melody-tone and the root of the V_7 chord rises four degrees the 3rd may descend three degrees in order to have a complete tonic triad. Otherwise the tonic triad will appear with root tripled.

In the progressions of the V_7 to the I with 5th in the melody, an occasional concealed octave will be found between the outside voices. These should be avoided when possible, but are not necessarily a great offence.

If the root of the V_7 is in the melody, it may sometimes be allowed to skip down a 5th or up a 4th, but care should be taken to have the bass move in contrary motion as otherwise parallel octaves will

result. The contrary-motion octaves which do occur are not offensive. The root of the I triad will then be found tripled.



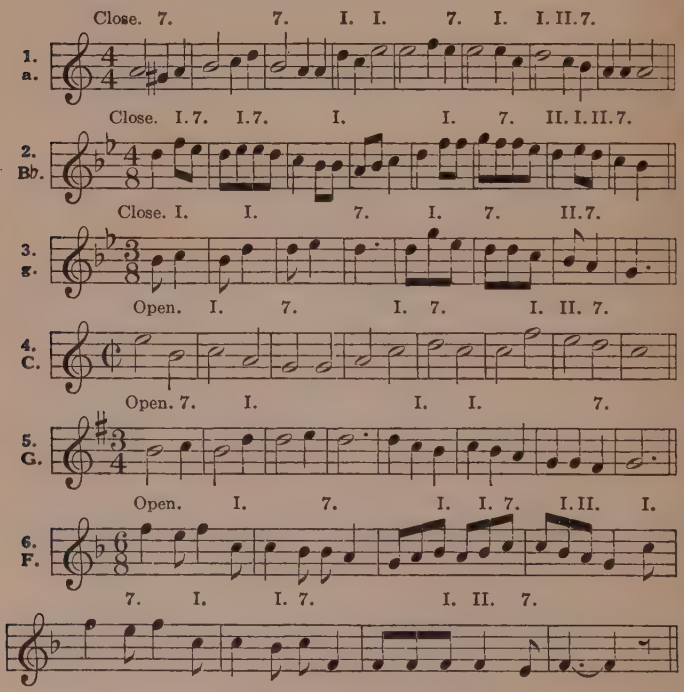
The common tendency of the 5th of the V_7 is down to the next degree, but it may sometimes be found moving up 1 degree, occasionally skipping up a 4th, but less frequently skipping down a 5th.

*The third of the tonic must be doubled in this progression.

The resolution of the V_7 chord should be thoroughly mastered before proceeding to the next chapter. The importance of familiarizing oneself with the possibility of progression to tonic will be evidenced later in the resolutions of the seventh chords to come. These are governed more or less, by the same rules as are used for V_7.

The rule of doubling the root and omitting the 5th is not rigid, but, as the student progresses, he will be able to determine when, and when not, to apply it. The omission of the fifth of the tonic triad is of no great importance as the chord is not thereby weakened.

The following exercises should be carefully worked out with due regard for the leading of the bass-voice and consideration for concealed octaves, especially when the 5th of the V_7 is in the melody.

V_7 chord in root position:



Lesson XVII

The Inversions of the Dominant Seventh Chord (V_7)

Just as the inversions add strength, variety and color to the primary triads, so do the inversions heighten and beautify the dominant seventh chord, giving greater diatonic melody to the bass and more interesting voice-leadings throughout.

The dominant seventh chord permits of three inversions:

1. First inversion, 3rd in bass, indicated by $\frac{7}{I}$ over the melody-tone. Resolved to I triad, root position.

2. Second inversion, 5th in bass, indicated by $\frac{7}{II}$ over the melody-tone. Resolves to I triad, root position.

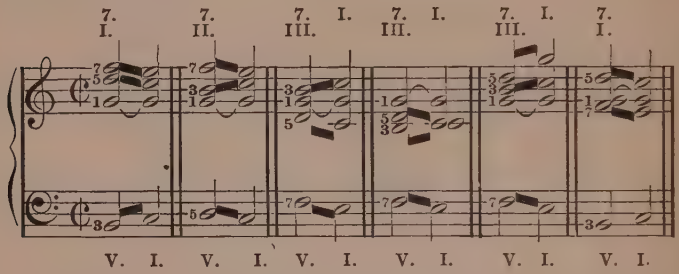
3. Third inversion, 7th in bass, indicated by $\frac{7}{III}$ over the melody-tone. Resolves to I triad, first inversion.

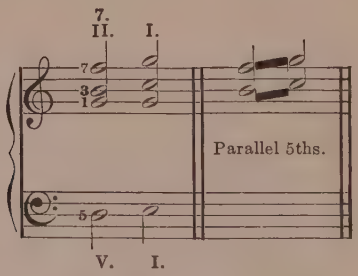
When the V_7 is inverted, all factors must be present and each must resolve to its tendency note:

7th, 5th } each down one degree.

3rd up one degree.

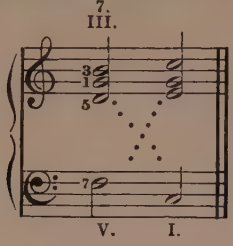
1 (or root), either ties or moves up four or down five degrees.

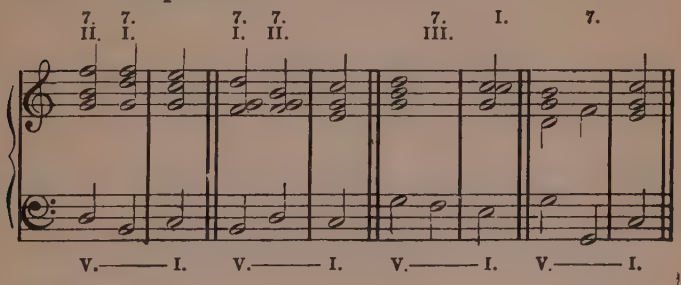
The 5th may also move up one degree, or skip up a fourth, especially in the resolution of the V_7 third inversion:

Occasionally the second inversion of the V_7 may move to the first inversion of the tonic triad. It will be noted in this progression that the dissonant factor, the 7th, moves up one degree conjunctly with the 3rd of the chord, thus creating parallel fifths. These fifths, through custom, have come to be recognized as possible.

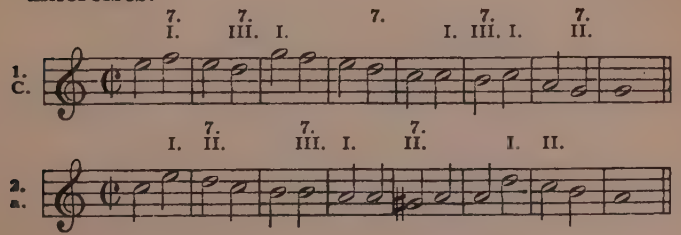


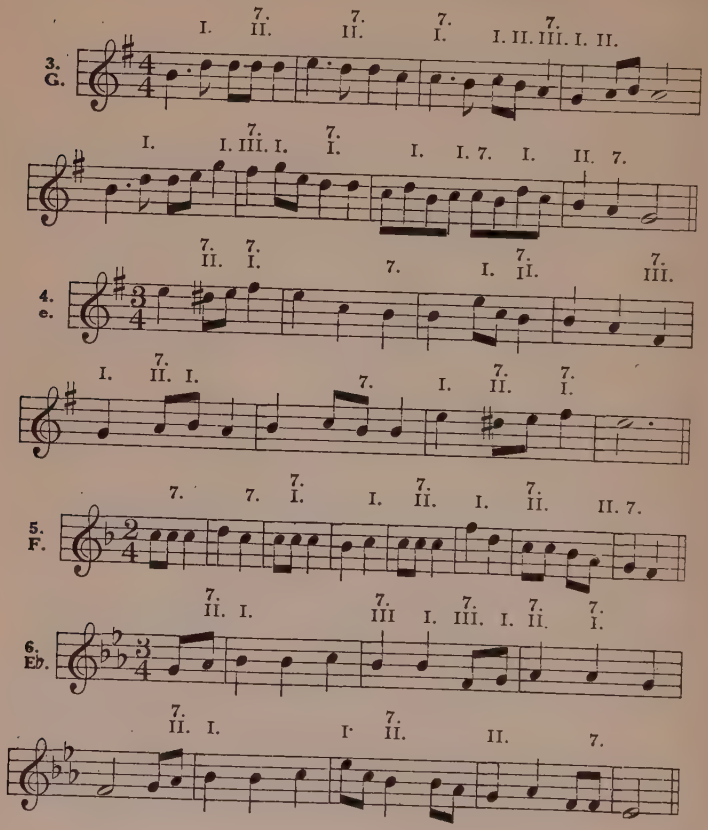
Some authorities also permit the 7th of the V_7 chord, in the third inversion, to skip down a fourth in the final cadence, calling the progression a cross-resolution. This may be possible, but is not strongly

advocated. It should never be used except in the cadence, if at all, and then only in case of necessity.



The repetition of the V_7 chord in another position, or inversion, is permitted. Also, the V_7 chord following the V triad may sometimes be used. Such progressions as these are often necessary, but care must be taken to resolve the V_7 chord properly when it is repeated.

Exercises.





Lesson XVIII

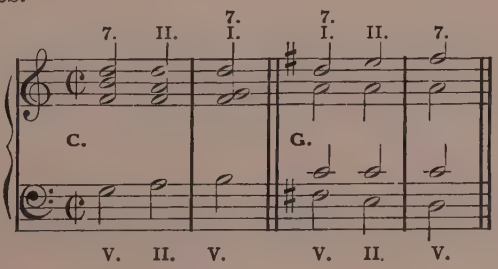
The Supertonic Triad in Major (II)

Next in importance to the Primary Triads, and a chord of the greatest possibilities and usefulness, is the SUPERTONIC TRIAD. This is the first of the Secondary Triads, and, through common tones,

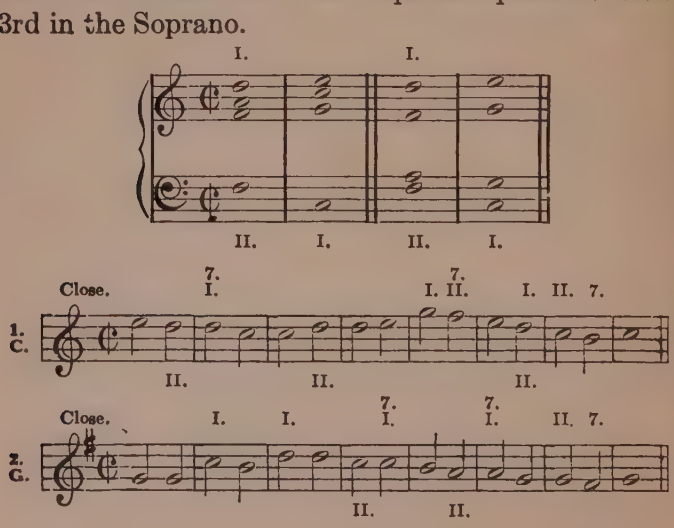
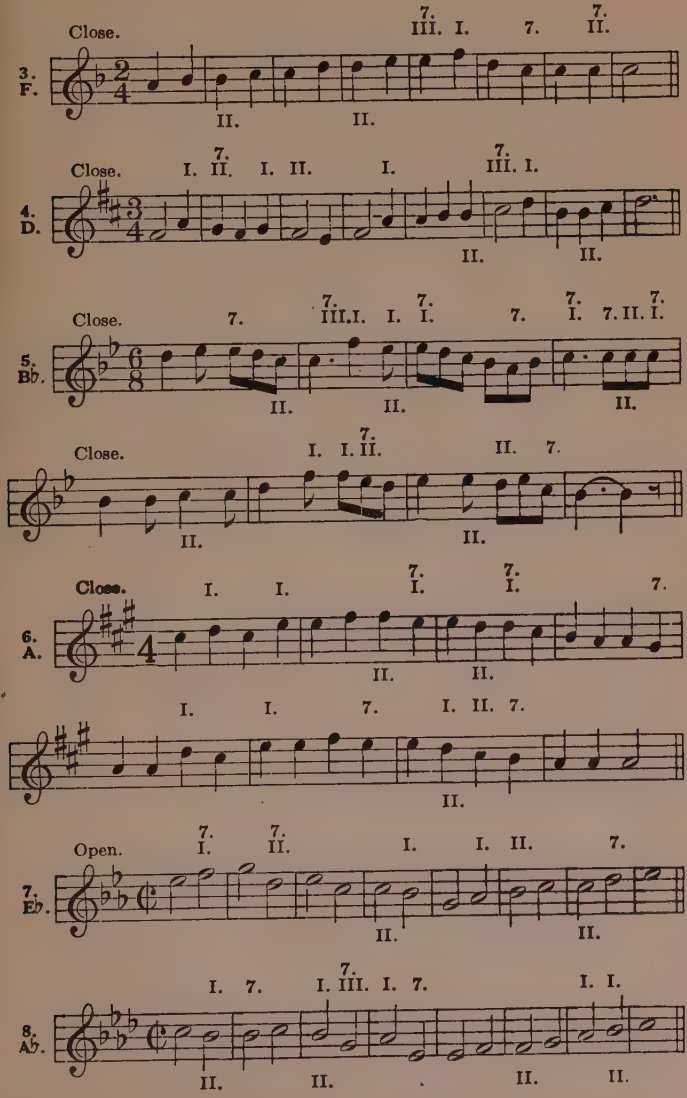
is related to the Subdominant Triad, the 3rd and 5th of the II being the root and 3rd of IV. Bearing this subdominant character, it may substitute freely for the IV, and in this sense it is most useful as a triad.

It may be used in root position and first inversion, as were the Primary Triads, and the same rules apply except that when used in the first inversion, it is generally best to double the 3rd rather than the root, although it is possible to double root or 5th. The subdominant quality is emphasized more strongly if the 3rd of the II is doubled, and since it is purely a IV substitution chord, this tone is best to double.

It may be used to precede any of the Primary triads or the V_7 chord. On account of the IV character, the II triad is not so much used to follow the V or V_7 chord, although the II triad, second inversion, may be used between two V_7 chords in the nature of a filling-in or passing chord: V_7 to II^{II} to V_7^{I} or vice versa. In this case, the bass must move diatonically in contrary motion to one of the other voices.

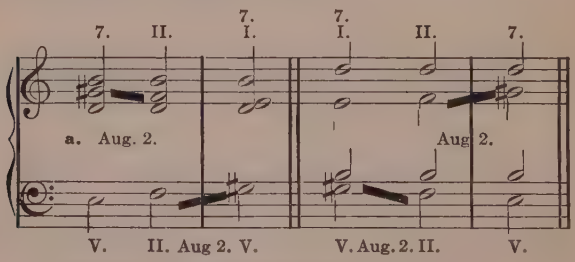
Example:

Progressions of IV to II^{I}, or II to IV are not especially good, as the chords are too much alike in character. Successions of I to II or II to I are good if managed in contrary motion.

The particular use of the II triad is immediately preceding the authentic or extended cadence: II to V to I, or II to V_7 to I, or II to I^{II} to V_7 to I. The II triad is best used in 1st inversion in all three of these instances, although it may be employed also in root position. Do not hesitate to double the 3rd of the II triad, even though the 3rd is the melody tone, for, as is the case with all minor triads, the 3rd may be doubled at will.

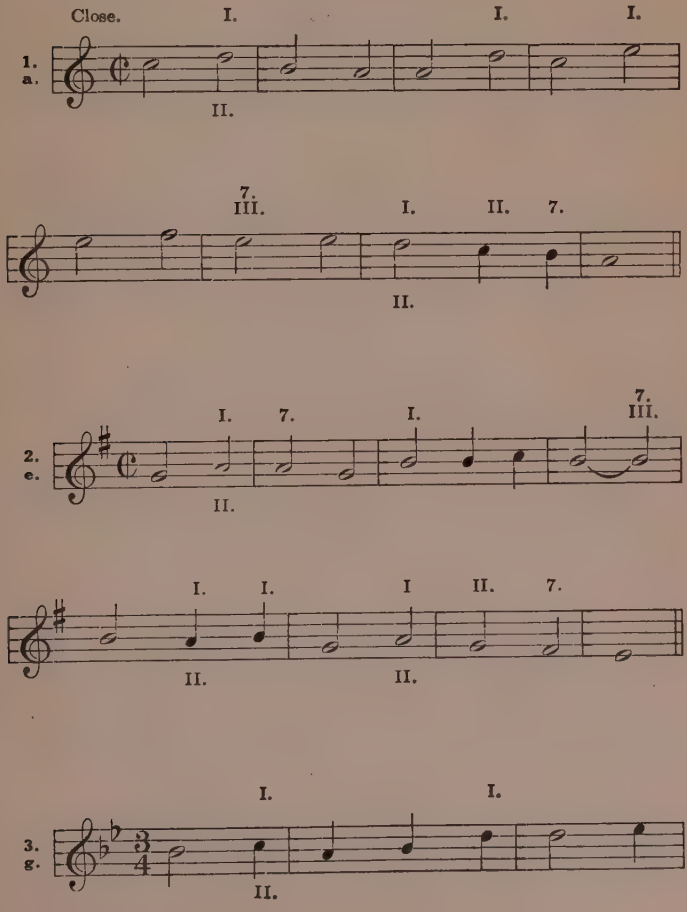
The use of the II^{I} to substitute for the IV in the Plagal cadence may sometimes be allowed if the final tonic chord is in the imperfect position with 3rd in the Soprano.


Close.
3. F.
Close.
4. D.
Close.
5. B♭.
Close.
Close.
6. A.
Open.
7. E♭.
8. A♭.

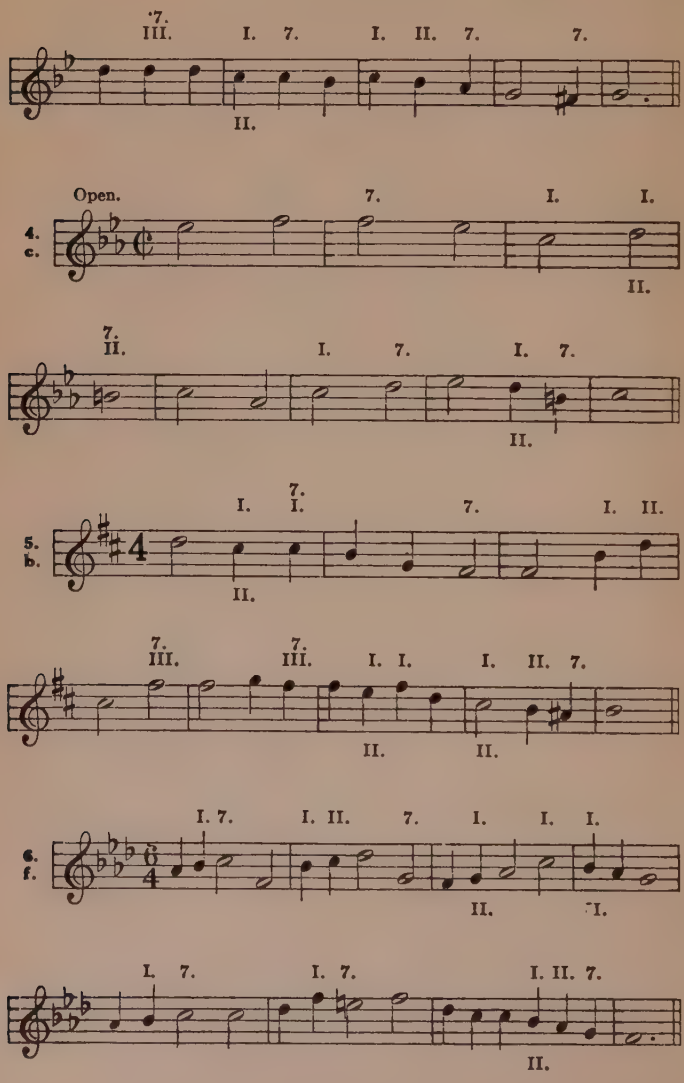
Lesson XIX

The Supertonic Triad in Minor

The II triad in minor does not bear the same relationship to the IV triad as it does in Major, although it has the same two common tones and apparently should bear the same relationship. The II in minor is a diminished triad, a discord being composed of two minor thirds. The root of the II is the leading tone of the related major scale and, because of its leading-tone tendencies, it cannot be doubled; consequently, the root position of the chord is very rarely used. Its best position is in first inversion with full chord above, thus automatically doubling the 3rd, although the 5th may occasionally be doubled. Aside from these facts, the II triad may be used in minor just as though it bore all the relationships to the IV that it does in major. The same progressions all hold good, especially when used preceding the cadence. But the V_7 to II^{II} to V_7 first inversion cannot be employed because of the augmented seconds which result.

Bad because of Augmented Seconds.

The II^{I} in the cadence may also be employed as in Major although it is not as effective or satisfactory.




7.
III.
I. 7.
I. II. 7.
7.
II.
Open.
7.
I.
I.
4.
c.
II.
7.
II.
I.
7.
I. 7.
II.
I.
7.
7.
I. I.
5.
b.
4
II.
7.
III.
7.
III.
I. I.
I. II. 7.
II.
II.
I. 7.
I. II.
7.
I.
I.
I.
6.
f.
6
4
II.
I.
I. 7.
I. 7.
I. II. 7.
II.

Lesson XX

The Supertonic Seventh Chord in Major (II_7)

The addition of the 3rd above the II triad forms the II_7 chord. This is the first of the secondary seventh chords, sometimes called the collateral sevenths. The II_7 bears the same relationship to the V triad that the V_7 bears to the tonic. All the factors of the II_7 move as do those of the V_7:

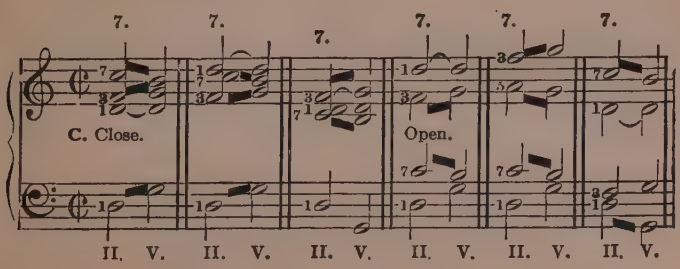
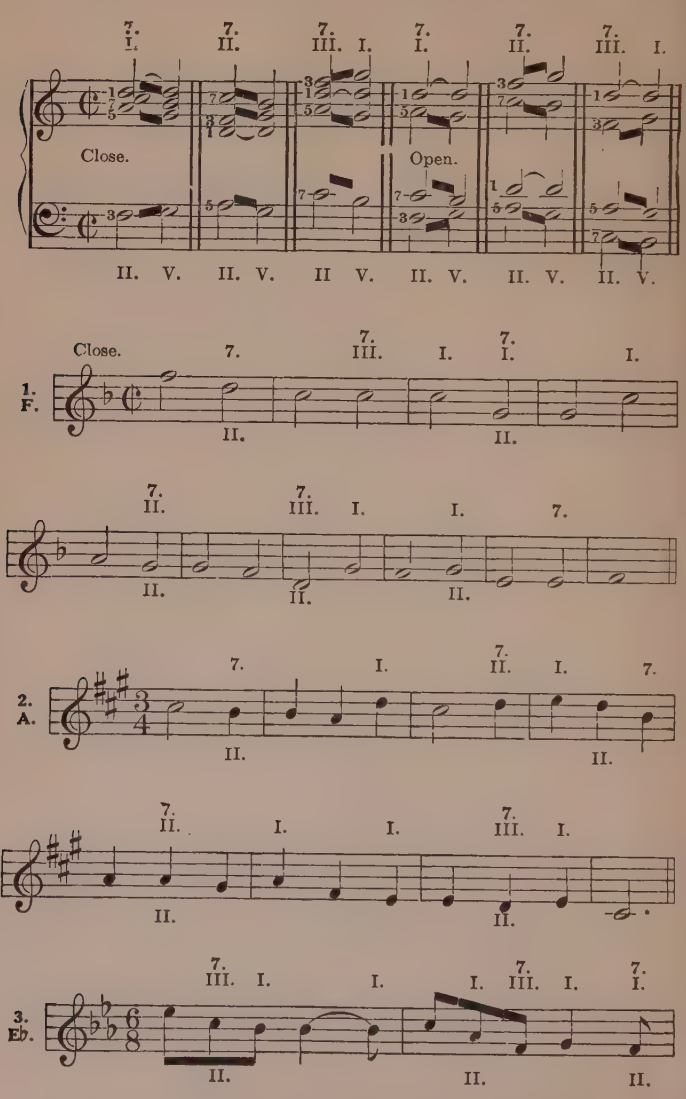
7, 5 } down one degree.

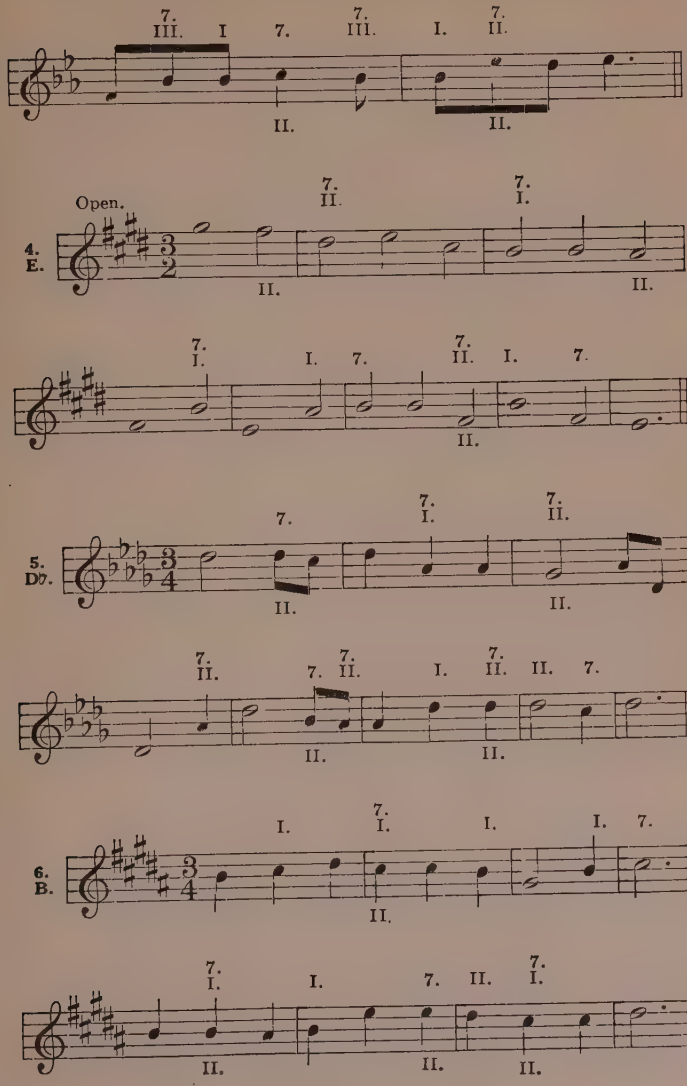
3 } up one degree.

Root up four, or down five degrees, or, if in any voice but the bass, it may tie.

Like the V_7 in root position, the root is best doubled and 5th omitted.

It also permits of the same three inversions, and when inverted, all factors must be present.

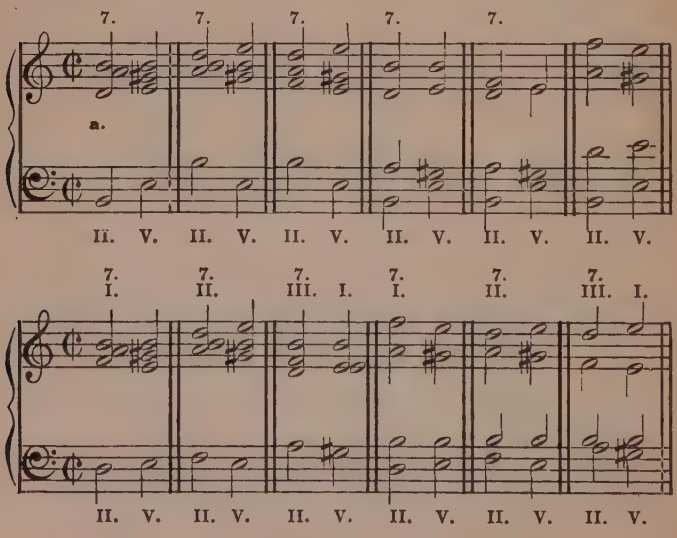
The II_7 Chord.


Close.
Open.
II. V. II. V. II V. II. V. II. V. II. V.
Close.
1. F.
2. A.
3. Eb.

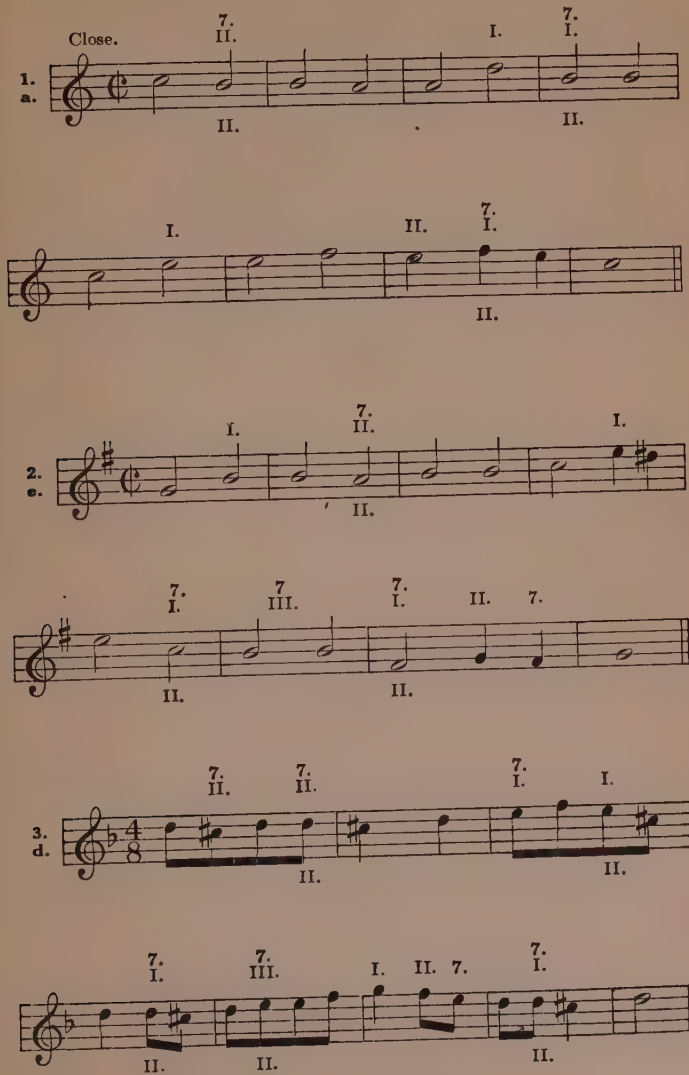

7. III. I 7. 7. III. I. 7. II.
II. II.
Open. 7. II. 7. I.
4. E.
II. II.
7. I. I. 7. 7. II. I. 7.
II.
7. 7. I. 7. II.
5. D♭.
II. II.
7. II. 7. 7. II. I. 7. II. II. 7.
II. II.
I. 7. I. I. I. 7.
6. B.
II.
7. I. I. 7. II. 7. I.
II. II. II.

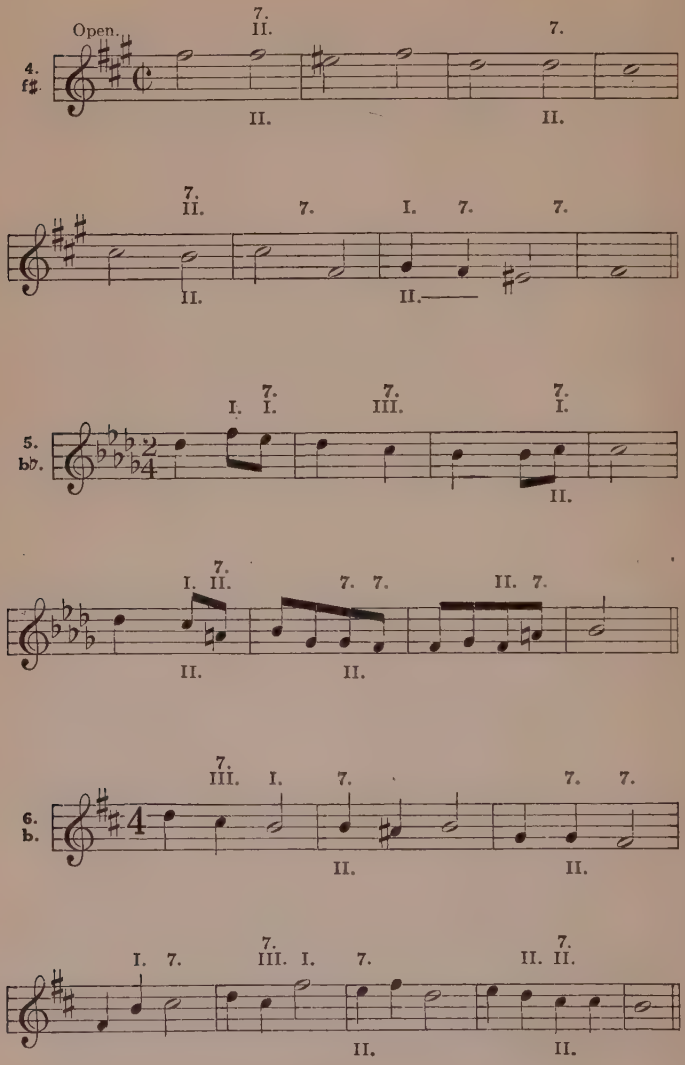
Lesson XXI

The Supertonic Seventh Chord in Minor (II_7)

The II_7 chord in minor progresses in the same manner as the II_7 in Major, although its best positions are II_7^{I}, II_7^{II} and II_7^{III}. If used in root position, the root may be doubled although it will sound a trifle over-balanced because of the fact that the root is the leading-tone of the relative major scale. This, however, is somewhat tempered through the fact of the dissonant (the seventh) being present. If the II_7 is used without doubled root, the resulting V will appear without 5th, and, if care is not exercised, is liable to create concealed octaves between outside voices.




Close.
1.
a.
2.
e.
3.
d.


Open.
4.
f♯.
5.
b♭.
6.
b.

Lesson XXII

The Irregular Progressions of Supertonic 7th Chord (II_7)

The most useful progressions of the II_7 chord result when it moves irregularly to a chord other than the V triad. Such progressions are called irregular because each factor of the chord does not always conform to the natural resolution found in the regular progressions. In the irregular progressions, the important thing is to take care of the 7th of the chord.

The seventh should always move down to the next degree or tie. The other factors of the chord, 1st, 3d and 5th, will move to suitable tones in the following chord regardless of rules.

The important irregular progressions of the II_7 are to the I^{II} or the V_7, and occasionally to the III in root position or first inversion.

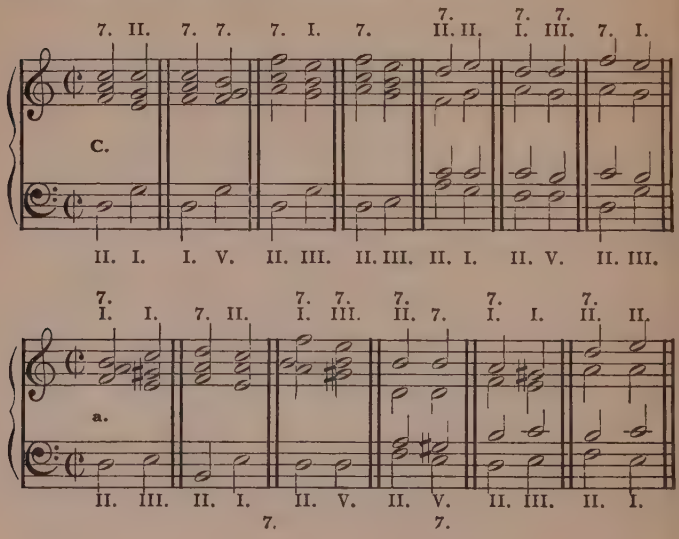
We are anticipating somewhat in introducing the mediant (III) at this point, but, from the point of view of its usefulness in connection with the irregular progressions of the II_7, a word of explanation concerning it will make its use possible.

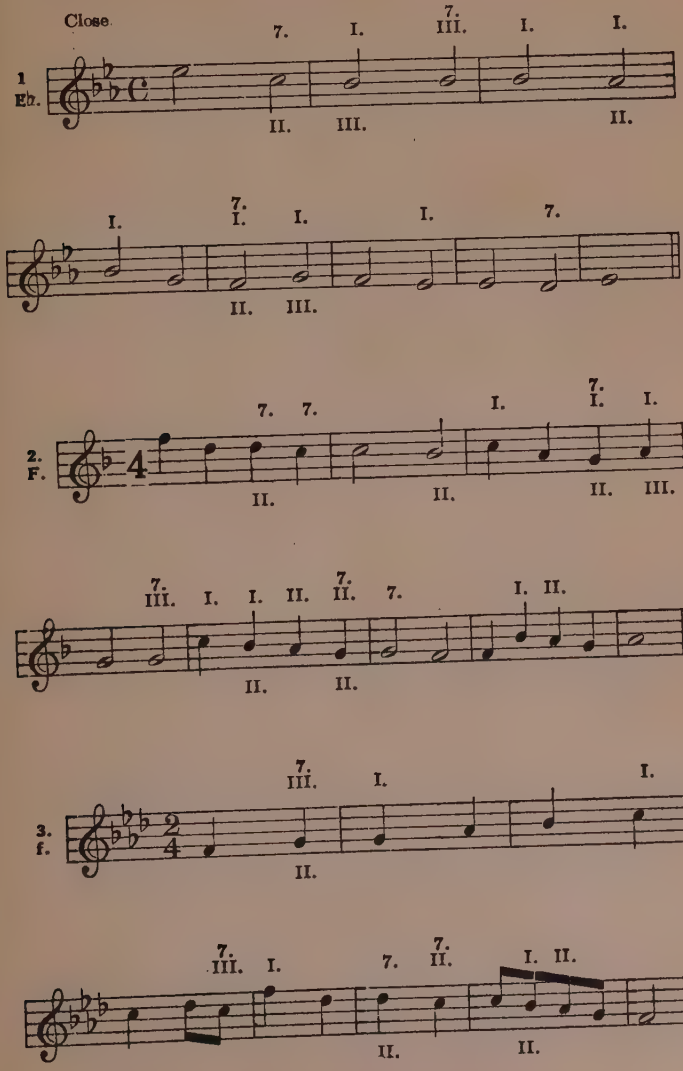
The Mediant triad is minor in the Major scale and augmented in the minor scale. It has two notes in common with the dominant triad and two in common with the tonic triad, and consequently may substitute for either of these chords.

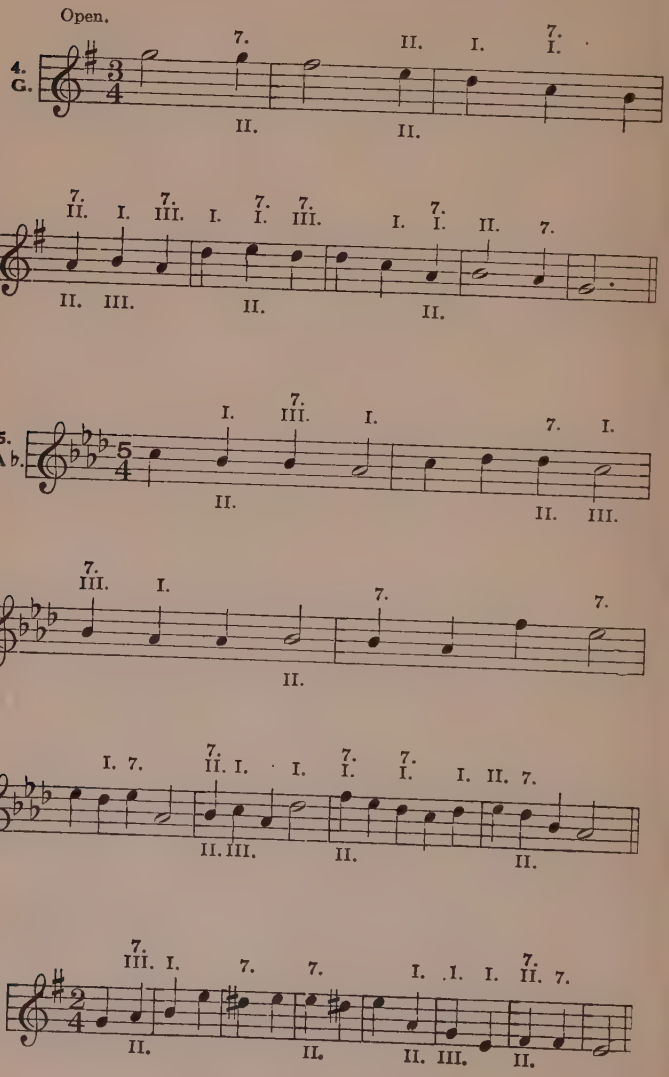
In its dominant substitution, and also that of the tonic second inversion, the mediant should be written in the first inversion with full chord above. This doubles the third of the chord, which is the best note to double. It may be used in root position following the II_7 chord in Major, but is not as effective in root position following the II_7 in minor.

The mediant triad will be treated more fully in its relationship to the other triads in a coming chapter.

It is usually necessary to have a complete II_7 chord present when it progresses irregularly, as this will serve to give a better position to the following chord. The following are the possible irregular progressions both in Major and minor:




Close.
1
Eb.
2.
F.
3.
f.


Open.
4.
G.
5.
A♭
6.
e.

Lesson XXIII

The Submediant Triad in Major (VI)

The triad on the sixth degree of the major scale is the tonic of the relative minor scale. It is important in this relationship because it introduces this related minor quality into the Major, thus adding one more color to the scale with which to work. Its relationship to the primary triads is principally that of tonic character. It has two tones in common with the tonic as well as two with the subdominant and may substitute for either of these chords.

Its tonic substitution is best illustrated when it appears following either the V or V_7 chords.

Its subdominant substitution is more apparent when preceding either the V or V_7 chords. Whenever the V or V_7 progresses to any chord except to the tonic, to which the ear is ordinarily accustomed, the progression is called a DECEPTIVE CADENCE. This special deceptive cadence to the VI is called the Interrupted Cadence as it serves to interrupt and prolong the close. This cadence is especially useful when the composer desires to add a coda to a composition, which is a means of prolonging the ending into something more decisive than would result with the simple cadence.

In the progression of the V_7 to VI, the V_7 chord should always be complete, that is, all factors present.

Then resolve each factor as follows:

7th, 5th } each down one degree.

3rd, root } each up one degree.

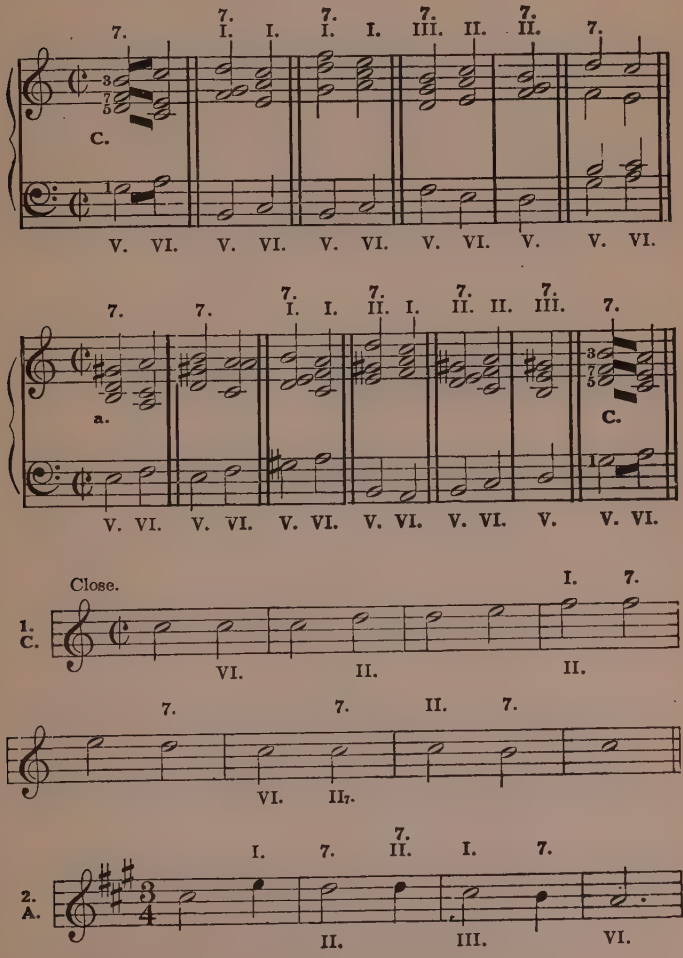
This will automatically double the 3rd of the VI triad which is necessary in order to avoid octaves and fifths in major as well as the added error of progression, the augmented second, in minor.

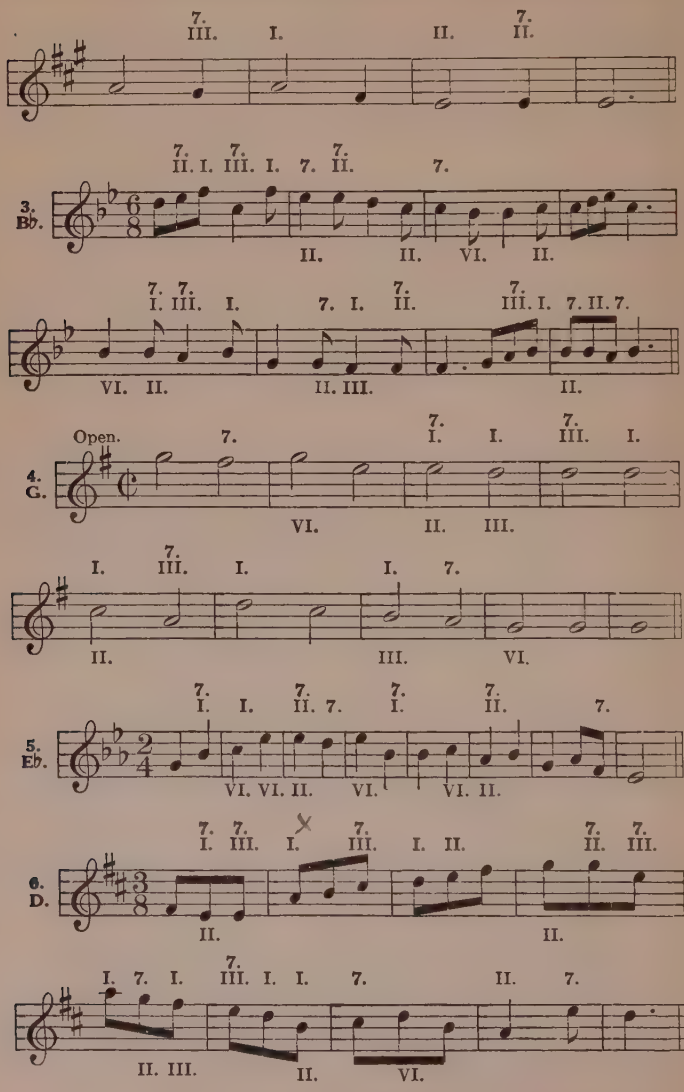
There is but one instance in which the 3rd need not be doubled, and that is in major when the 3rd of the V_7 is present in the melody. In this instance, the 3rd, 5th and 7th may all proceed down one degree in contrary motion to the rising root in the bass. Although this progression is of no decided strength, it may be used if no better progressions can be found.

In progressing from the inversions of the V_7 to the VI, all are good except that of V_7^{III} to VI. This results in the second inversion of the VI chord which should be avoided at present, unless the following chord is V_7^{II}. In this case the VI may be used as a passing 2nd inversion: V_7^{III} to VI^{II} to V_7^{II} or V_7^{II} to VI^{II} to V_7^{III}.

In progressing from the V triad to the VI, be sure to double the 3rd of the VI just as though the V_7 had been used instead of the V triad. This will serve to make the progression easily handled.

When the VI precedes the V_7, it may be used in root position or 1st inversion according to the position of the following V_7.




7. III. I. II. 7. II.
3. B♭. 7. II. I. 7. III. I. 7. 7. II. 7.
II. II. VI. II.
7. 7. I. III. I. 7. I. 7. II. 7. III. I. 7. II. 7.
VI. II. II. III. II.
Open. 7. 7. I. I. 7. III. I.
4. G.
VI. II. III.
I. 7. III. I. I. 7.
II. III. VI.
7. I. I. 7. II. 7. 7. I. 7. II. 7.
5. E♭.
VI. VI. II. VI. VI. II.
7. 7. I. III. I. 7. III. I. II. 7. II. 7. III.
6. D.
II. II.
I. 7. I. 7. III. I. I. 7. II. 7.
II. III. II. VI.

Lesson XXIV

The Submediant Triad in Minor. (VI)

There is little to be added to the progressions relative to the VI triad in minor that has not already been covered in the preceding chapter. However, in minor, the VI is a major triad and may be used in the same two relationships of I and IV to the V, as in major. Great care must be exercised in overcoming the augmented 2nd with which we are now dealing.

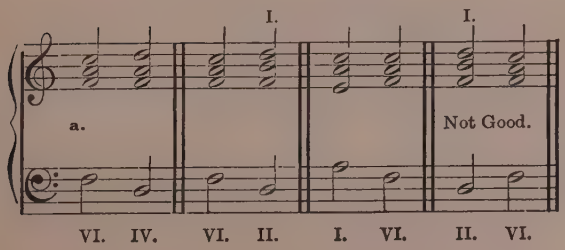
In the progressions involving other than V or V_7, the following are fair:

VI to IV or VI^I to IV

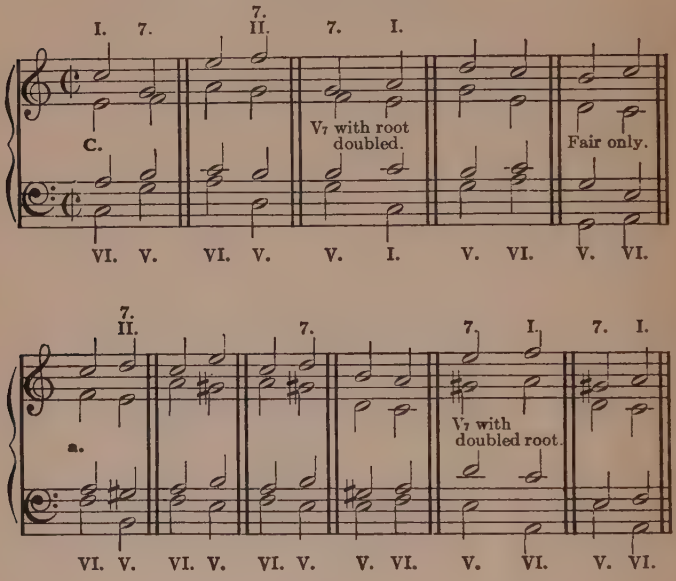
VI to II^I or VI^I to II^I

I to VI

II^I to VI not good.



Illustrations of VI in both qualities:



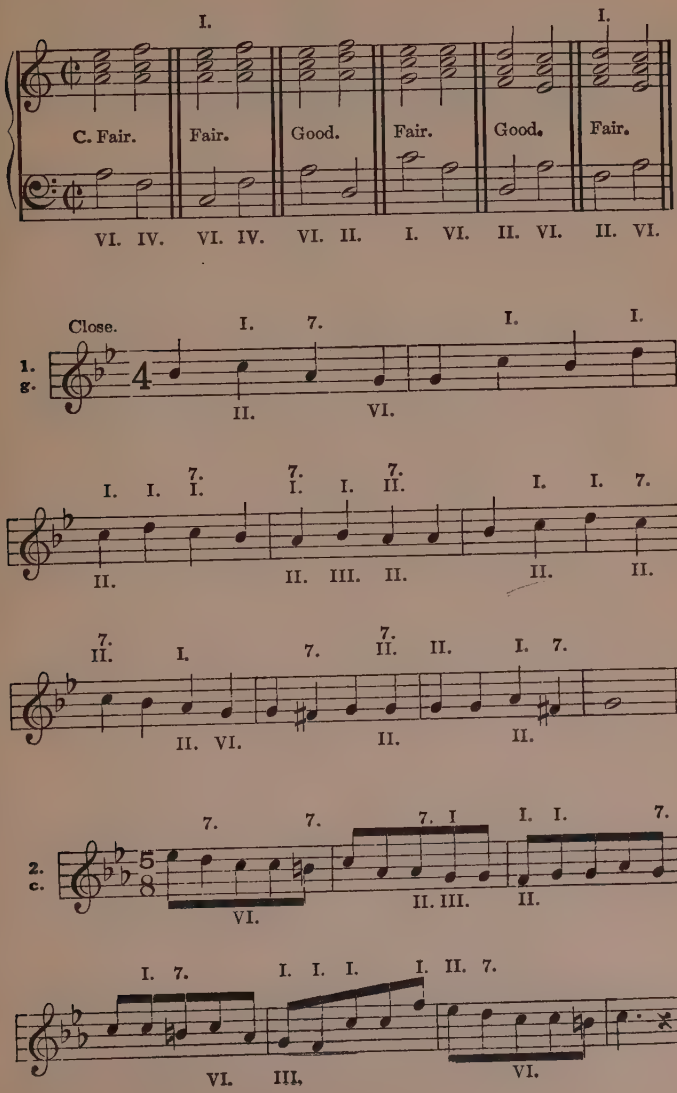
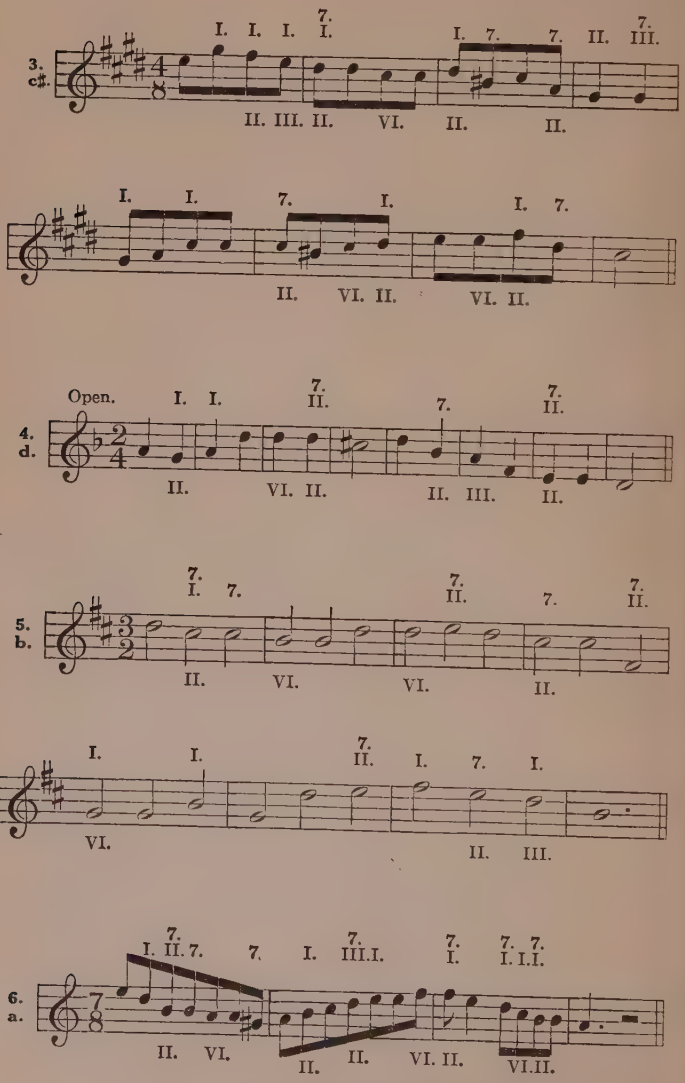
Besides acting in the capacity of I and IV qualities in relation to the V or V_7, the VI triad may also be used in the following ways:

VI to IV or VI^I to IV or VI to IV^I or VI^I to IV^I.

VI to II or VI to II^I or VI^I to II^I.

I to VI.

II to VI or II^I to VI.


I.
I.
C. Fair.
Fair.
Good.
Fair.
Good.
Fair.
VI. IV. VI. IV. VI. II. I. VI. II. VI. II. VI.
Close.
1.
g.
I. 7.
I.
II. VI.
I. I. I. 7. I. I. 7. I. I. 7.
II. II. III. II. II. II.
7. 7. 7. I. I. 7.
II. I. II. II. II.
7. 7. 7. I I. I. 7.
2.
c.
VI. II. III. II.
I. 7. I. I. I. I. II. 7.
VI. III. VI.

3.
c♯.
I. I. I. 7. I. I. 7. 7. II. 7. III.
II. III. II. VI. II. II.
I. I. 7. I. I. 7.
II. VI. II. VI. II.
4.
d.
Open. I. I. 7. II. 7. 7. II.
II. VI. II. II. III. II.
5.
b.
7. I. 7. 7. II. 7. 7. II.
II. VI. VI. II.
I. I. 7. II. I. 7. I.
VI. II. III.
6.
a.
7. I. II. 7. 7. I. 7. III. I. 7. I. 7. I. I. 7. I.
II. VI. II. II. VI. II. VI. II.

Lesson XXV

THE MEDIANT TRIAD IN MAJOR. (III)

As was explained in the lesson on the Irregular Progressions of the II_7 chord, the Mediant triad is both I and V in quality. This chord, besides being used in the ways already described, *i.e.*, as substituting for the V or I^{II}, may also be used with the VI triad in the quality of V to VI, or, reversed, as I to the VI. Such progressions as VI to III or III to VI find frequent place in harmonization of melodies and are of a peculiarly interesting effect in that two minor chords are found in succession in a major tonality. Other progressions in which the III may be used are:

III to V, or III to V_7 or III^I to V or III^I to V_7.

III^I to I.

II to III or II to III^I or II^I to III^I.

I to III^I.

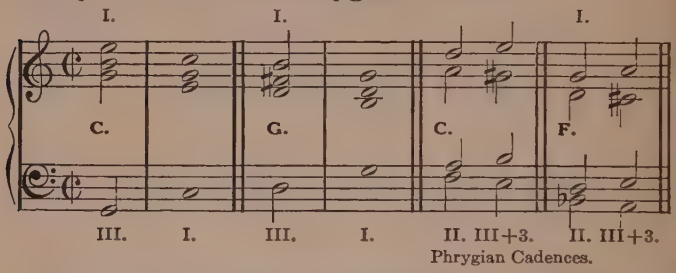
IV to III^I or IV^I to III^I.

V to III^I or V_7 to III^I.

These progressions are somewhat exceptional and not of great frequency, but are given as possible in order to have as complete a variety of the uses of the secondary triads as is commensurate with good taste. If the III triad is used as a substitute for the V, or V_7, in the final cadence, it should be written in the first inversion with root in the soprano. In

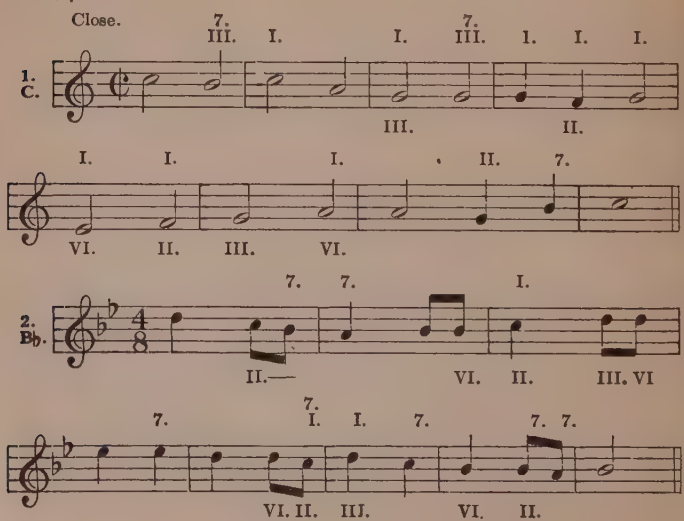
progressing to the final I, the root should descend a 3rd to the root of the I triad.

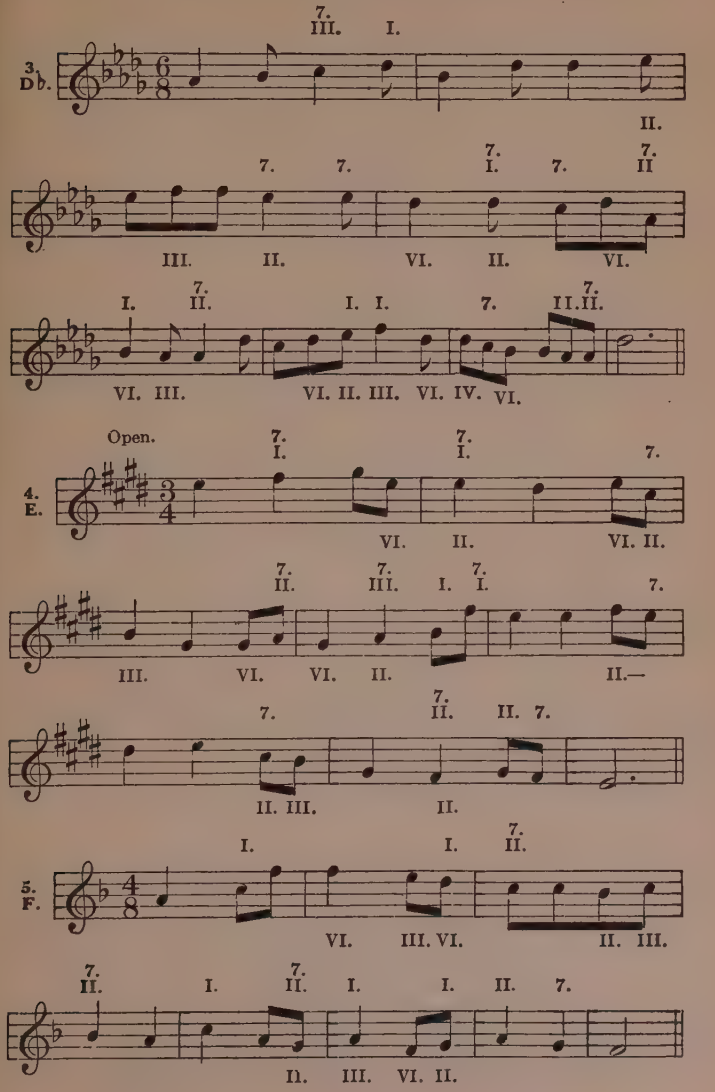
The III triad may also be used with raised 3rd following the II. The raised 3rd is indicated by a plus sign: III+3. This progression of II to III+3 in Major is called the Phrygian Cadence.

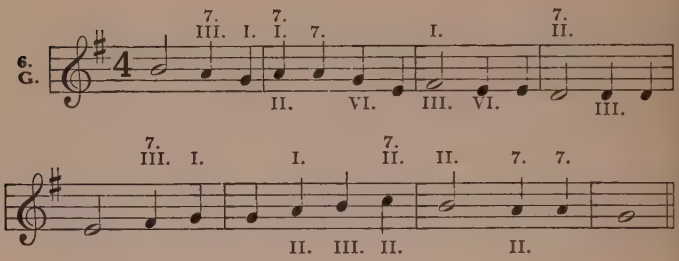


Phrygian Cadences.

The III+3 is usually succeeded by VI, II, II_7, I, or V_7.



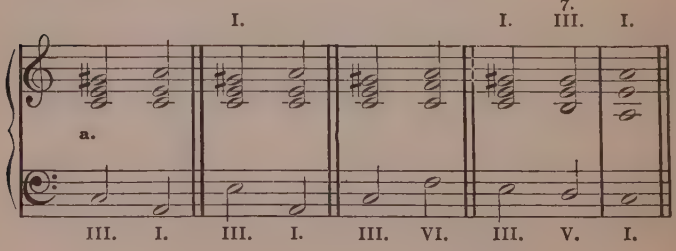

3.
D♭.
7.
III. I.
II.
7. 7. 7. 7. 7.
I. II
III. II. VI. II. VI.
7. 7. 7. 7.
I. II. I. I. II. II.
VI. III. VI. II. III. VI. IV. VI.
Open.
4.
E.
7. 7. 7.
I. I.
VI. II. VI. II.
7. 7. 7. 7.
II. III. I. I.
III. VI. VI. II. II.—
7. 7. 7.
II. II.
II. III. II.
5.
F.
I. I. 7.
II.
VI. III. VI. II. III.
7. 7. 7. 7. 7.
II. I. II. I. I. II.
II. III. VI. II.

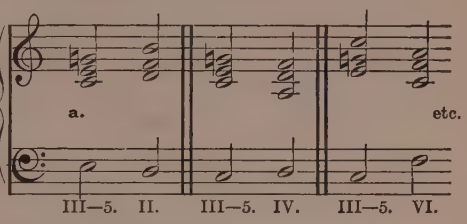


Lesson XXVI

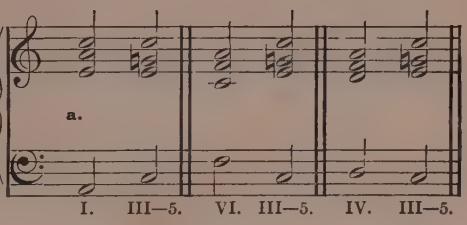
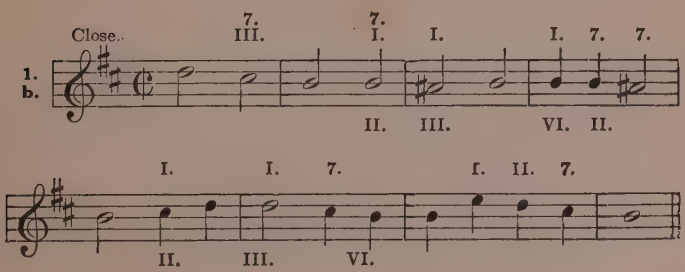
The Mediant Triad in Minor. (III)

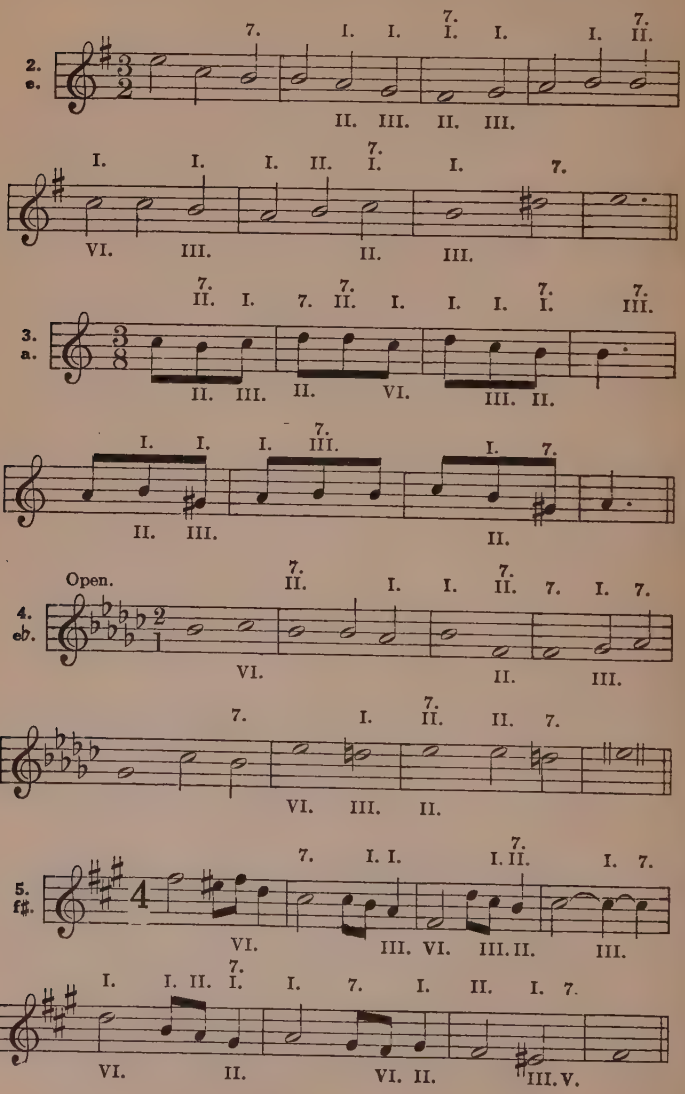
This is an augmented triad and as such does not always appeal to the average ear. It is so strongly V in quality that its uses otherwise are not of great importance. It may be used in either root position or first inversion, especially the latter, and has such an insistent tonic tendency that other progressions except to the V or V_7 are not especially effective. It may be used in progressing to the VI if the 3rd of the VI triad is doubled as in the progression of V or V_7 to VI.

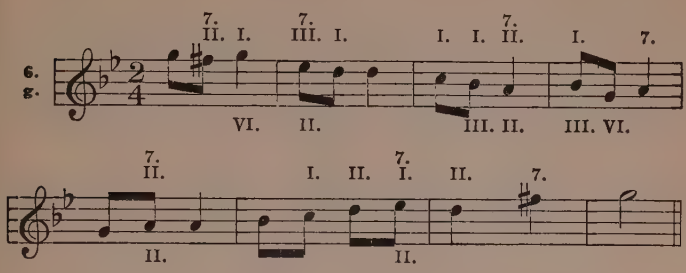
Examples:

The III triad in minor sometimes occurs with natural fifth, although with no great frequency. In this form, III—5 (minus 5 indicates lowered 5th) becomes a major triad and as such is the I of the relative major key. It may be written in root position and 1st inversion and progresses as follows:

III—5 to I
III—5 to II
III—5 to VI
III—5 to IV

III—5 to V or V_7 not so good.

Preceding chords:

I to III—5
VI to III—5
IV to III—5




2.
e.
3.
a.
Open.
4.
eb.
5.
f♯.



Lesson XXVII

THE LEADING-TONE TRIAD IN MAJOR. (VII)

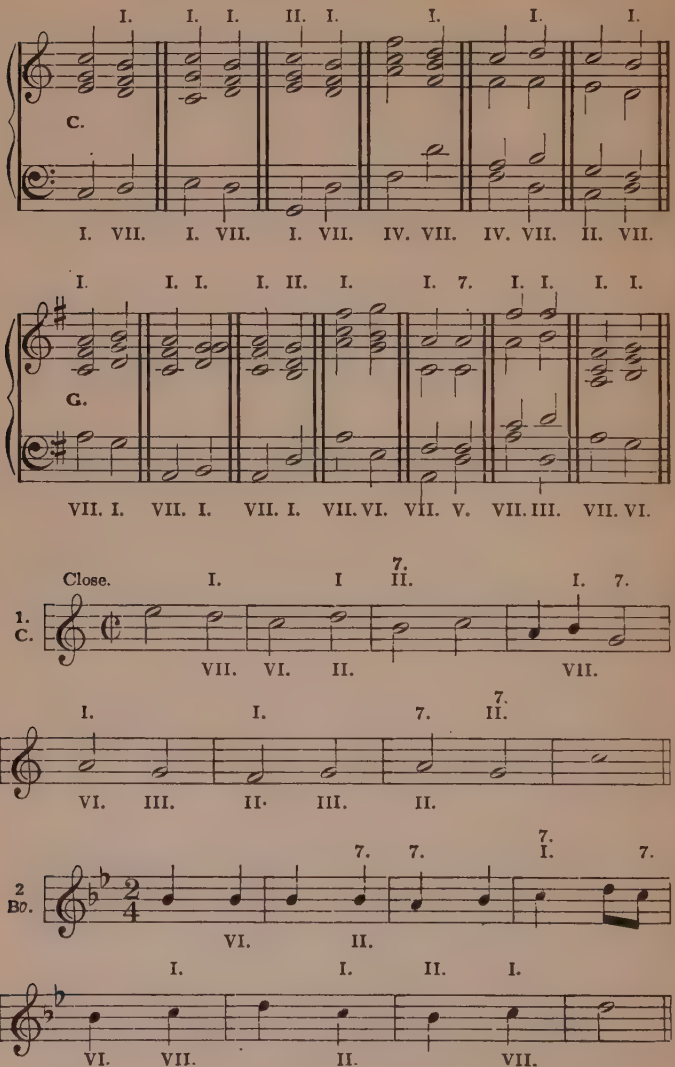
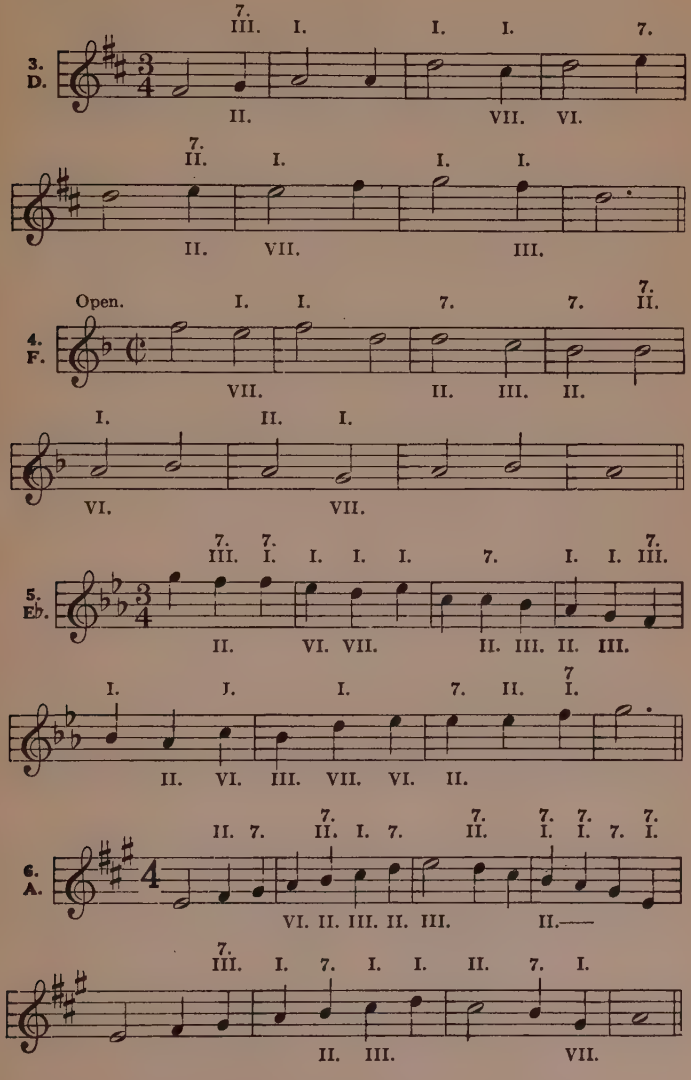
This triad is diminished and is simply the V_7 chord without a root. Consequently, it is strongly dominant in character and may substitute for the V or V_7 chord even in the final cadence, although the real dominants are better. The root of the VII chord is the leading-tone of the scale and should not be doubled. The chord is always written in the first inversion with 3rd or 5th doubled.

The preceding chords are:

I or I^{I} or I^{II} to VII^{I}.
IV to VII^{I}.
II—II^{I} to VII^{I}.

The succeeding chords are:

VII^{I} to I or I^{I} or I^{II}.
VII^{I} to VI or VI^{I}.
VII^{I} to V or V_7.
VII^{I} to III^{I}.

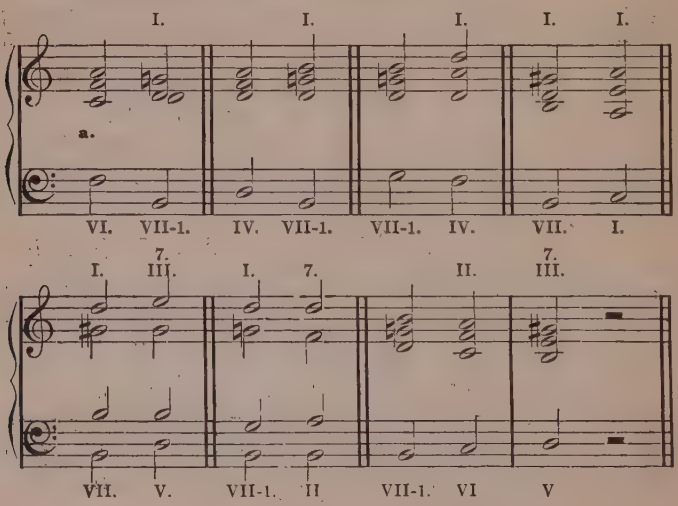
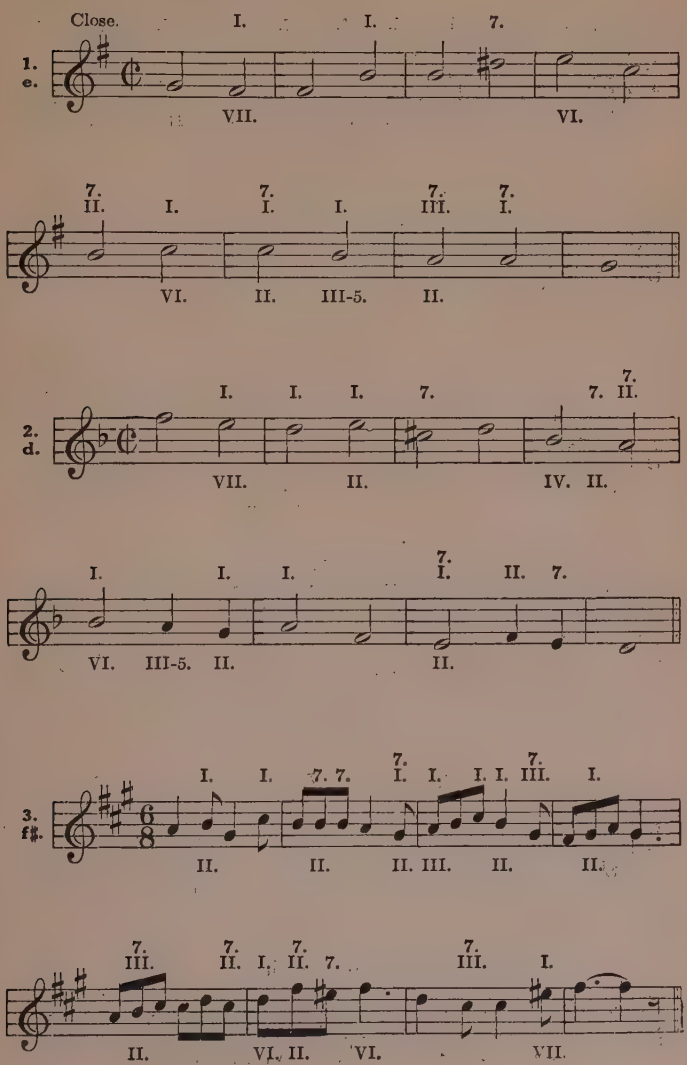

C.
I. I. I. II. I. I. I. I.
I. VII. I. VII. I. VII. IV. VII. IV. VII. II. VII.
G.
I. I. I. I. II. I. I. 7. I. I. I. I.
VII. I. VII. I. VII. I. VII. VI. VII. V. VII. III. VII. VI.
Close.
1. C.
I. I 7. II. I. 7.
VII. VI. II. VII.
I. I. 7. 7. II.
VI. III. II. III. II.
2 Bo.
7. 7. 7. I. 7.
VI. II.
I. I. II. I.
VI. VII. II. VII.

3. D.
III. I. I. I. 7.
II. VII. VI.
II. I. I. I.
II. VII. III.
4. F.
Open. I. I. 7. 7. II.
VII. II. III. II.
I. II. I.
VI. VII.
5. Eb.
III. I. I. I. I. 7. I. I. III.
II. VI. VII. II. III. II. III.
I. I. I. 7. II. I.
II. VI. III. VII. VI. II.
6. A.
II. 7. II. I. 7. II. I. I. 7. I.
VI. II. III. II. III. II.—
III. I. 7. I. I. II. 7. I.
II. III. VII.

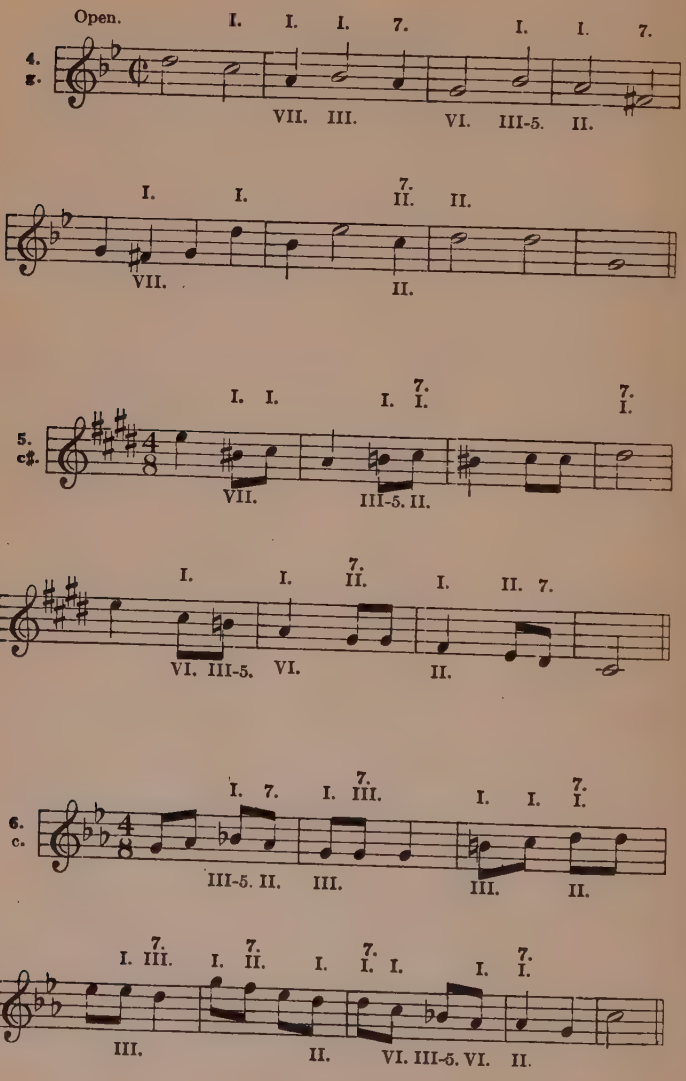
Lesson XXVIII

The Leading-Tone Triad in Minor. (VII)

This is a diminished triad as in major and the same rules hold good. The preceding and succeeding chords are the same.

The leading-tone triad is sometimes written with root lowered (VII—I) to the natural 7th degree of the scale. It is then called the sub-tonic triad and in this form is a major triad sounding like the V of the III—5. It is rarely used with the III—5, as this is liable to cause a strong feeling of being in the relative major key; but it may be used progressing to VI, I, IV, V, V_7, II_7.

The preceding chords: VI, IV, I.


Close.
1. e.
2. d.
3. f♯.

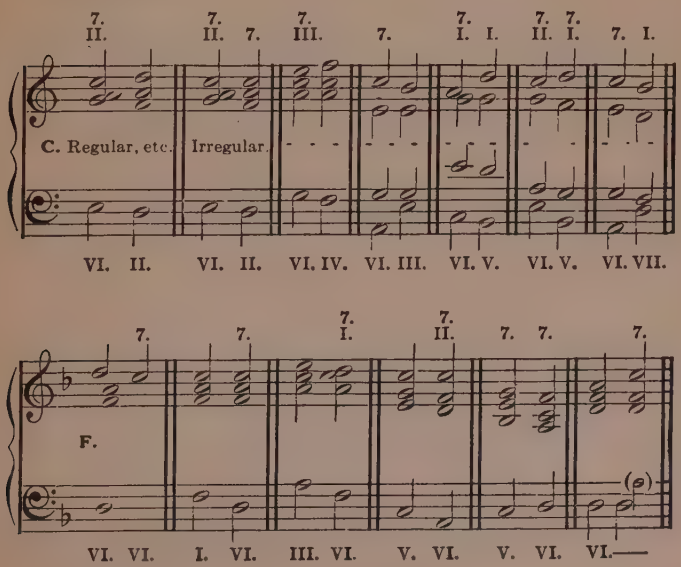

Open.
I. I. I. 7. I. I. 7.
4.
g.
VII. III. VI. III-5. II.
I. I. 7. II. II.
VII. II.
I. I. I. 7. 7. I.
5.
c♯.
VII. III-5. II.
I. I. 7. I. II. 7.
VI. III-5. VI. II.
I. 7. I. 7. III. I. I. 7. I.
6.
c.
III-5. II. III. III. II.
7. I. III. 7. I. II. 7. I. I. 7. I. I. 7. I.
III. II. VI. III-5. VI. II.

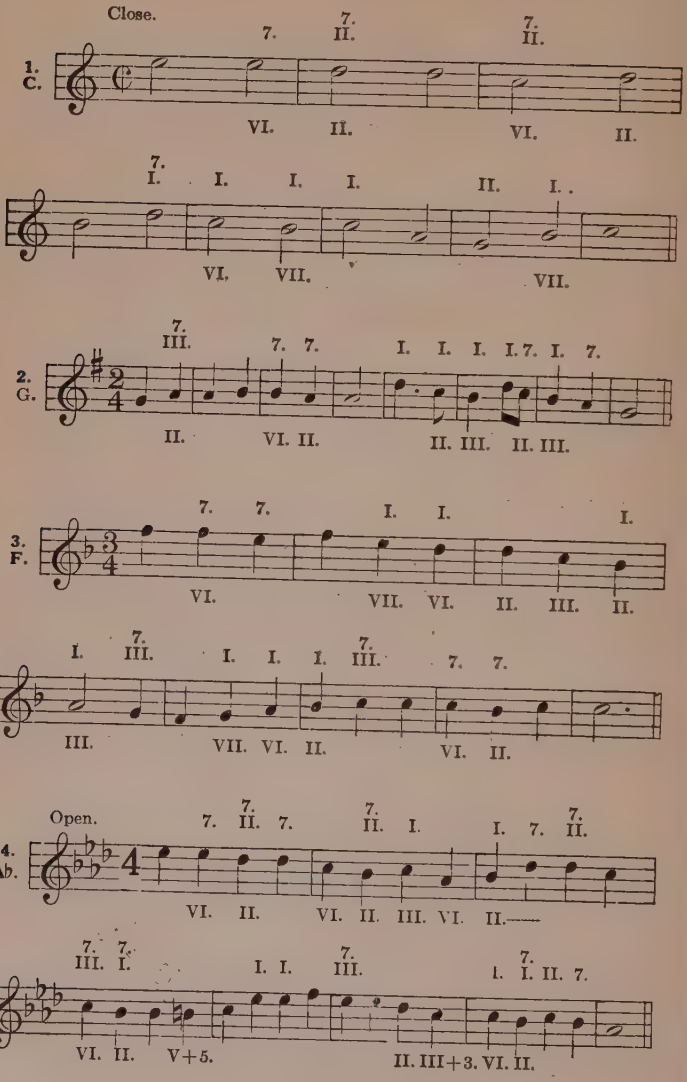
Lesson XXIX

The Submediant Seventh Chord in Major. (VI_7)

The VI_7 chord in major has a minor 7th and resolves regularly to the II triad, *i.e.*, in same manner as V_7 resolves to I. It may also progress irregularly to: II_7, IV, V, V_7, III^I, VII (later to IV_7, VII_7, VII°_7).

The preceding chords may be VI, I, III, V, V_7 (later VII_7, VII_{7o} and V_9).

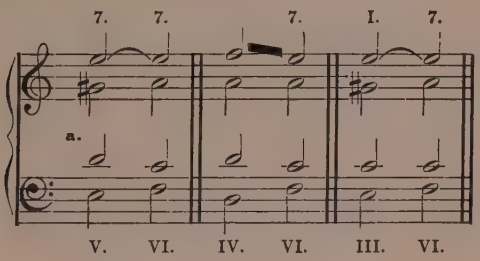
Examples:

7. 7. 7. 7. 7. 7. 7.
II. II. 7. III. 7. I. I. II. I. 7. I.
C. Regular, etc. Irregular.
VI. II. VI. II. VI. IV. VI. III. VI. V. VI. V. VI. VII.
7. 7. 7. 7. 7. 7. 7.
I. II.
F.
VI. VI. I. VI. III. VI. V. VI. V. VI. VI.—


Close.
1. C.
7. 7. 7.
II. II.
VI. II. VI. II.
7.
I. I. I. I. II. I.
VI. VII. VII.
2. G.
7. 7. 7. 7.
III. I. I. I. I. I. 7.
II. VI. II. II. III. II. III.
3. F.
7. 7. I. I. I.
VI. VII. VI. II. III. II.
7. 7.
I. III. I. I. I. III. 7.
III. VII. VI. II. VI. II.
Open.
4. Ab.
7. 7. 7. 7. 7.
II. II. I. I. 7. II.
VI. II. VI. II. III. VI. II.——
7. 7. 7. 7.
III. I. I. I. III. I. I. II. 7.
VI. II. V+5. II. III+3. VI. II.

Lesson XXX

The Submediant 7th Chord in Minor. (VI_7)

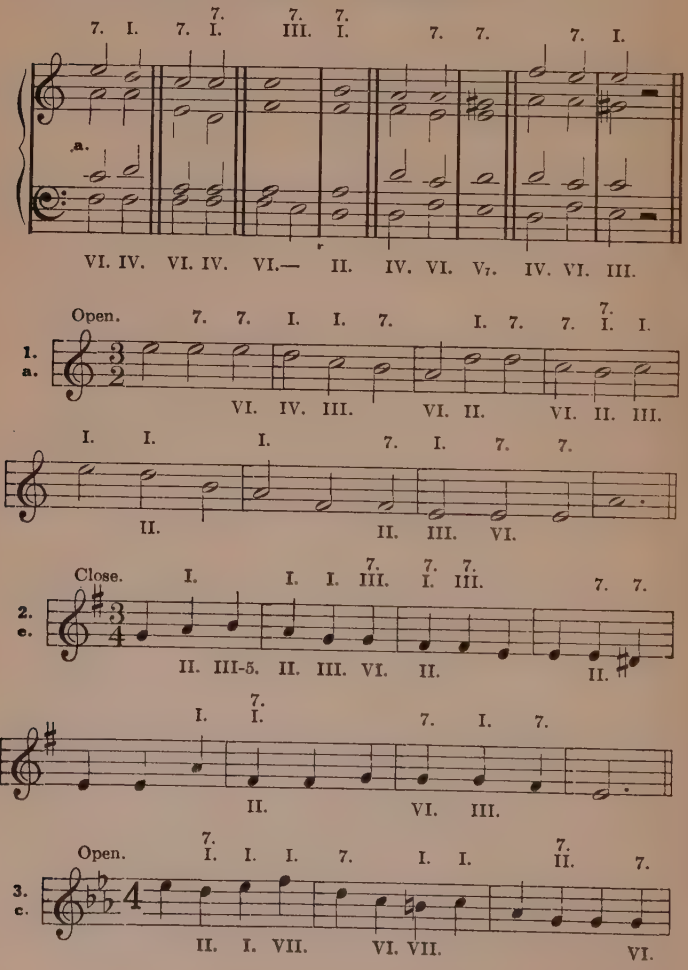
This chord is extremely dissonant in minor, being a major 7th and requiring preparation. To prepare a dissonant note, it should appear in the chord before and in the same voice, or should be approached diatonically from above. All Major 7th chords require preparation.

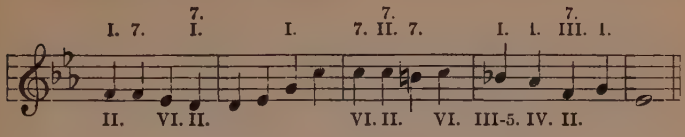
Illustrations of preparations of the VI_7:

The regular resolution of the VI_7 would be to the II triad, which, in minor, is diminished and should not be written with root in the bass. The VI_7 may, however, progress to IV, IV_7, V_7, II_7, III^I. All these are irregular progressions and in them the 7th of the VI_7 either ties or moves down to the next degree.

The preceding chords may be V_7, III, III^I, VI, IV, IV_7, and I.

By using the melodic form of the minor scale, the VI_7 may be used with raised root. In "a" minor it

would read: f♯-a-c-e. This use of the chord, while possible, is not strongly advocated at present. It will appear later under "Transitions."


7. I. 7. I. 7. III. 7. I. 7. 7. 7. I.
a.
VI. IV. VI. IV. VI.— II. IV. VI. V7. IV. VI. III.
Open. 7. 7. I. I. 7. I. 7. 7. I. I.
1.
a.
VI. IV. III. VI. II. VI. II. III.
I. I. I. 7. I. 7. 7.
II. II. III. VI.
Close. I. I. I. 7. III. 7. I. 7. III. 7. 7.
2.
e.
II. III-5. II. III. VI. II. II.
I. 7. I. 7. I. 7.
II. VI. III.
Open. 7. I. I. I. 7. I. I. 7. II. 7.
3.
c.
II. I. VII. VI. VII. VI.



Lesson XXXI

THE LEADING-TONE SEVENTH CHORD IN MAJOR.

(VII_7)

The VII_7 is the VII triad with 3rd added. It is a minor seventh and is strongly V in character. If a 3rd is added below this VII_7 chord, the V_9 results; consequently it may be considered a V_9 without root.

It may be used in all positions, although the third inversion is the weakest position, but may be used especially if moving into another V quality chord.

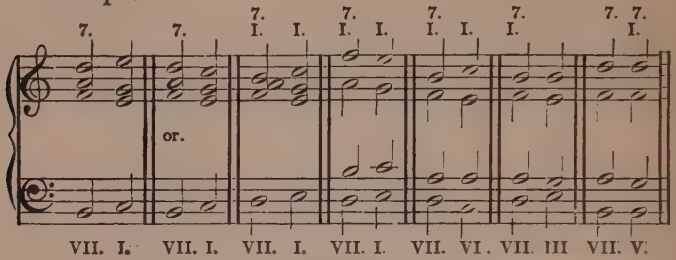
It resolves to the I triad in the same manner as the V_7 resolves to VI.

$\left.\begin{matrix}7\\5\end{matrix}\right\}$ down 1 degree.

$\left.\begin{matrix}3\\1\end{matrix}\right\}$ up 1 degree.

This doubles the 3rd of the I triad which is necessary in order to avoid incorrect progressions. Occasionally the 3rd may progress down one degree if it is in the melody.

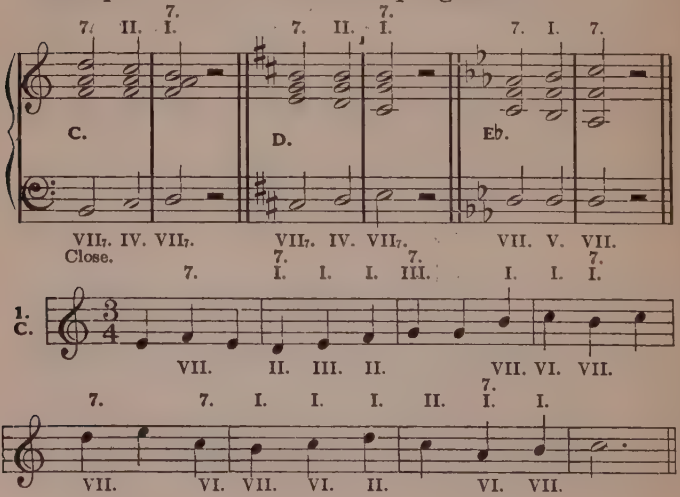
97714

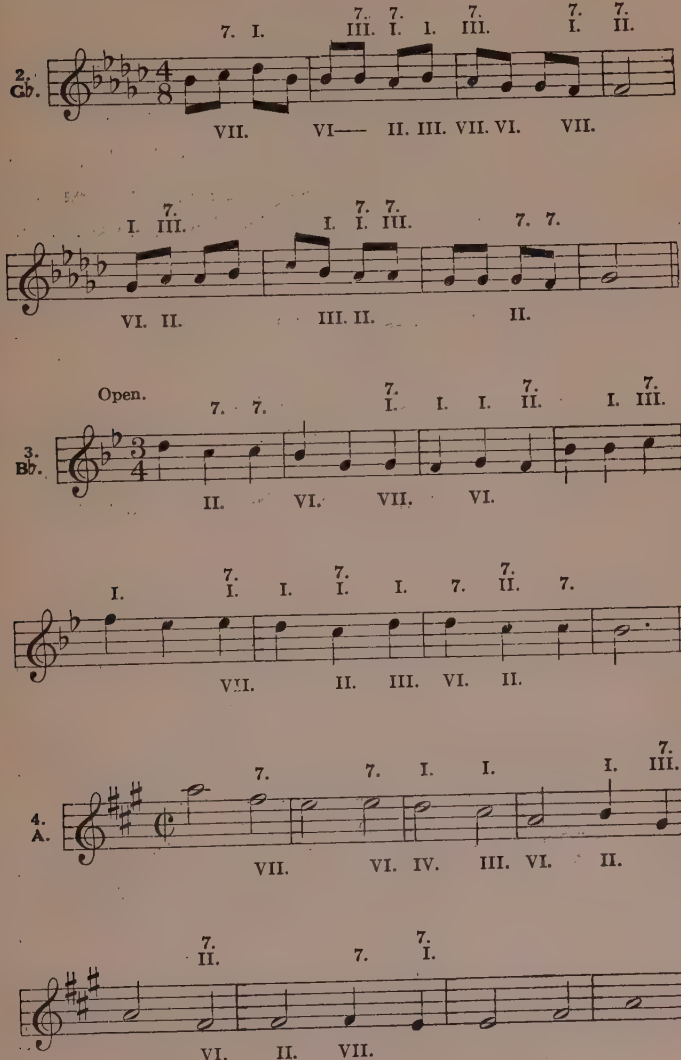
Examples:

In its irregular progressions, the VII_7 may progress to VI, IV, V, V_7, III.

All I and IV quality chords may be used to precede the VII_7.

The passing IV^{II} may be used between two VII_7 chords in the following manner: VII_7 to IV^{II}, to $VII_7{}^{I}$, or vice versa. Or the V^{I} may be used between two leading-tone sevenths in root position.

Examples of VII_7 in various progressions:



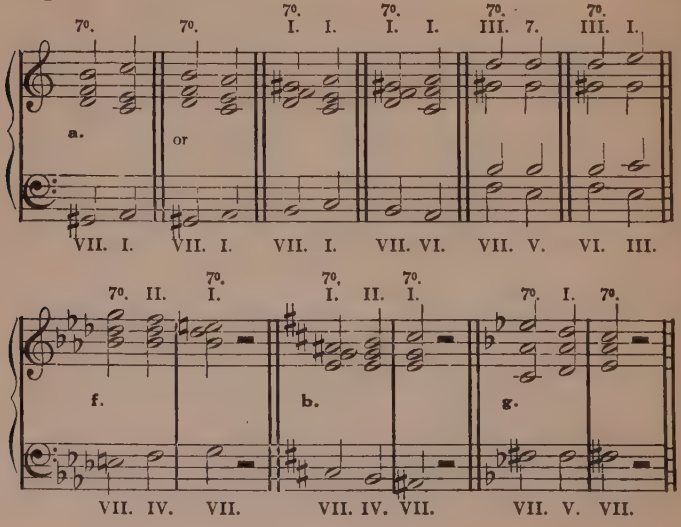
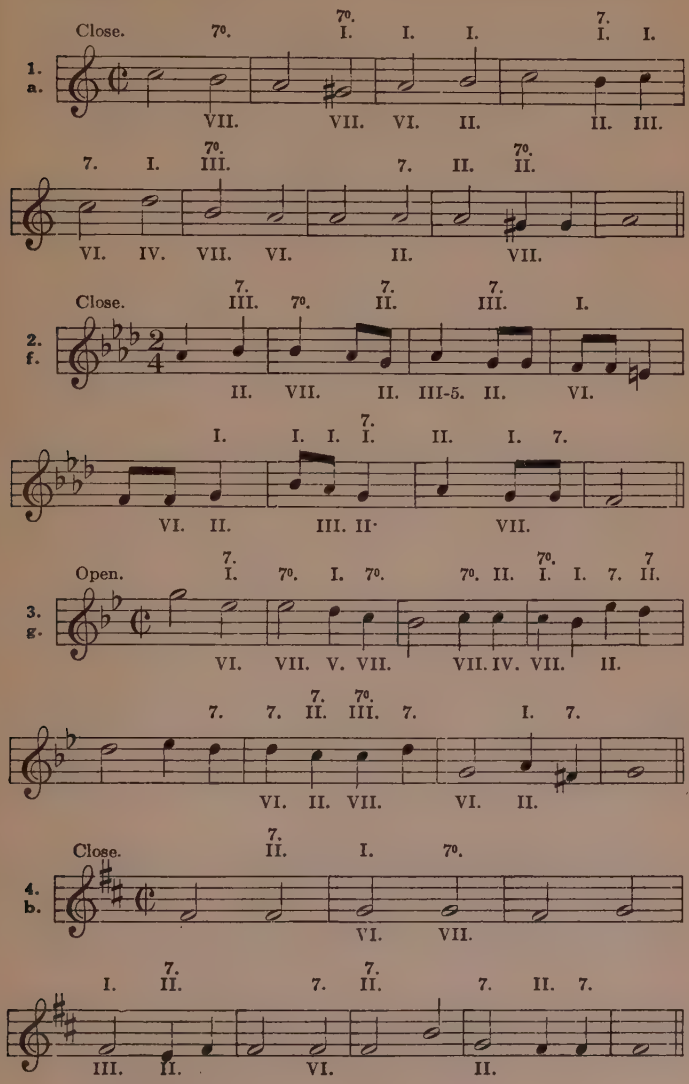

2.
Gb.
7. I.
7. 7. 7. 7. 7.
III. I. I. III. I. II.
VII. VI— II. III. VII. VI. VII.
I. 7. III.
I. 7. 7. III.
7. 7.
VI. II. III. II. II.
Open.
7. 7.
7. 7. 7.
I. I. I. II. I. III.
3.
Bb.
II. VI. VII. VI.
I.
7. 7. 7. 7. 7. 7.
I. I. I. I. II.
VII. II. III. VI. II.
4.
A.
7. 7. I. I. 7.
I. III.
VII. VI. IV. III. VI. II.
7. 7.
II. I.
7.
VI. II. VII.

Lesson XXXII

The Leading-Tone Seventh Chord in Minor. (VII°_{7}). The Diminished Seventh.

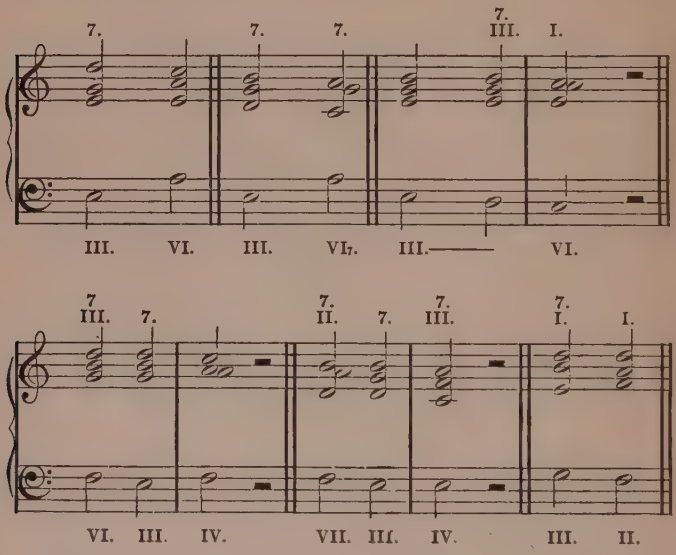
The VII°_{7} is composed of three minor thirds and is one of the most useful chords in music. Its natural resolution is to the I triad, and, in the same manner as the VII_7 in major, progresses to the I. All positions are good.

The passing chords, as used between two VII_7ths in major, are even more effective in minor. The irregular progressions are the same.

The VII°_{7} (the small circle implies diminished) is one of the most effective means of modulation which can be used. This will be explained later under the chapter "Modulation."

Close.
1.
a.
2.
f.
Open.
3.
g.
Close.
4.
b.

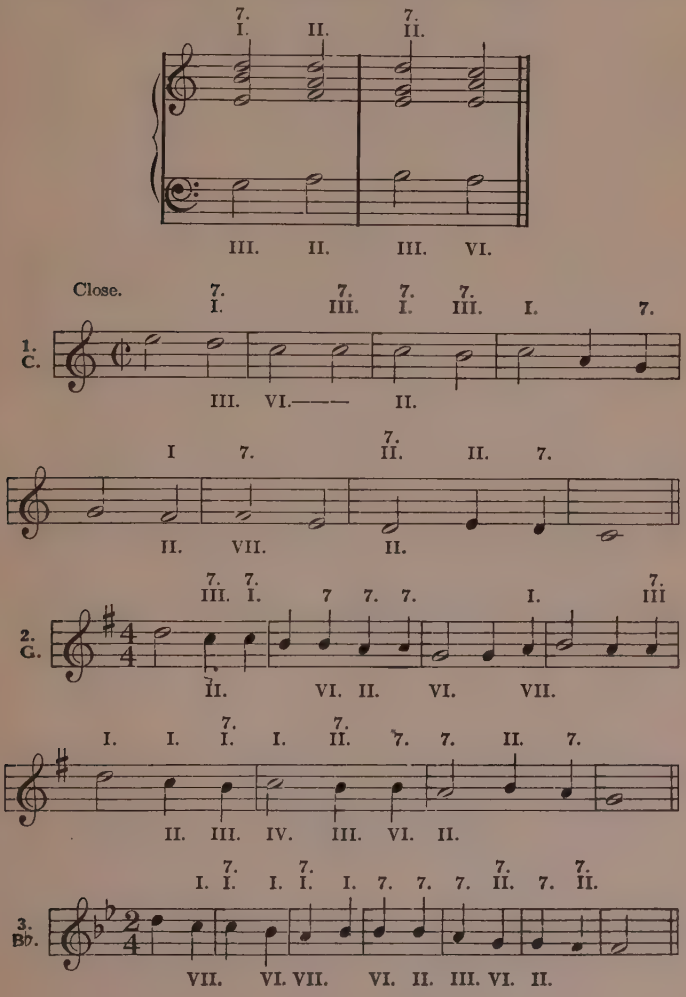
Lesson XXXIII

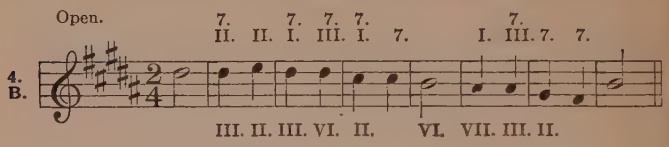
The Mediant Seventh in Major. (III_7)

This is a minor seventh chord; it may enter freely and be employed in any position. Its natural resolution is to VI triad.

The irregular progressions are to VI_7, IV with doubled 3d, IV_7 (harsh) and II.

The preceding harmonies are III, V, V_7, VII, VII_7, I.

The II^{II} may appear between two III_7 chords: $III_7{}^{I}$ to II^{II} to $III_7{}^{II}$, or vice versa.

The II^{II} then assumes the nature of a passing chord and is not of any great importance.

7. 7.
I. II. II.
III. II. III. VI.
Close.
7. 7. 7. 7.
I. III. I. III. I. 7.
1. C.
III. VI.—— II.
I 7. 7.
II. II. 7.
II. VII. II.
7. 7. 7.
III. I. 7 7. 7. I. III
2. G.
II. VI. II. VI. VII.
7. 7.
I. I. I. I. II. 7. 7. II. 7.
II. III. IV. III. VI. II.
7. 7. 7. 7.
I. I. I. I. I. 7. 7. 7. II. 7. II.
3. B♭.
VII. VI. VII. VI. II. III. VI. II.



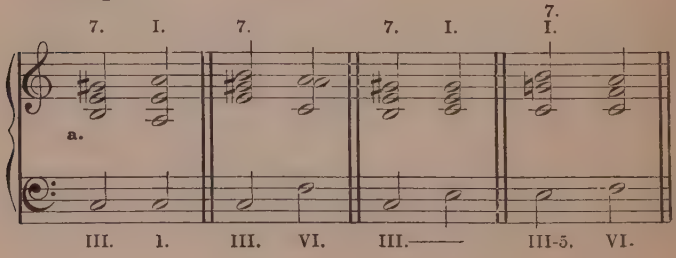
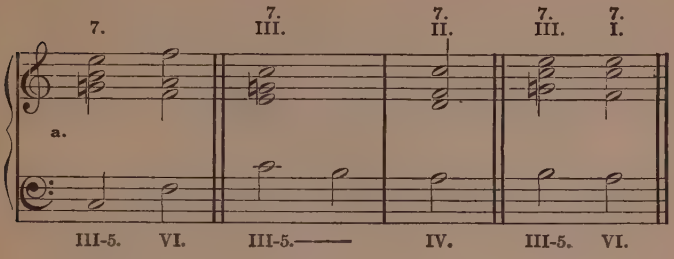
Lesson XXXIV

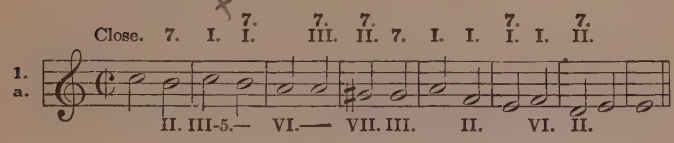
The Mediant Seventh in Minor. (III_7)

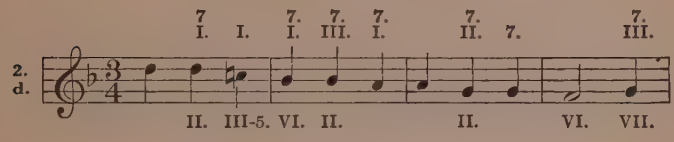
The III_7 is composed of an augmented triad and a major 7th, forming the harshest seventh chord in music. It is of no particular use in this form, but, should there be an occasion for its use, it will progress to I, VI with doubled 3rd, III^I, V_7, VII, VII°_7.

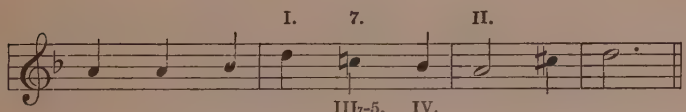
The preceding chords are I, VI, VI_7, IV, IV_7, V_7.

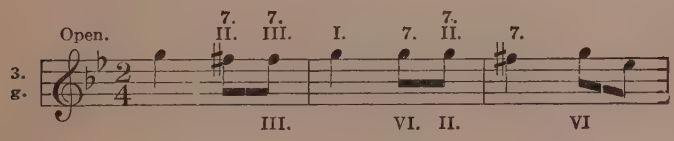
The III_7 may also be used with lowered 5th, in which case the natural progression to VI is simple and effective. (Indicated III_7—5). Preparation is necessary. Other progressions are to: IV, IV_7, VI, VI_7, V_7, and VII°_7.

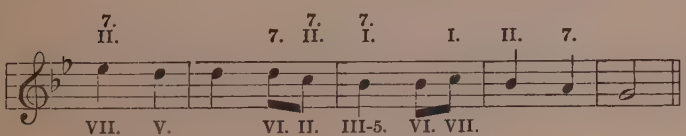
Examples:

7. III. II. III. I.
a.
III-5. VI. III-5.—— IV. III-5. VI.


Close. 7. I. I. III. II. 7. I. I. I. I. II.
1.
a.
II. III-5.— VI.— VII. III. II. VI. II.


7 I. I. I. III. I. II. 7. III.
2.
d.
II. III-5. VI. II. II. VI. VII.

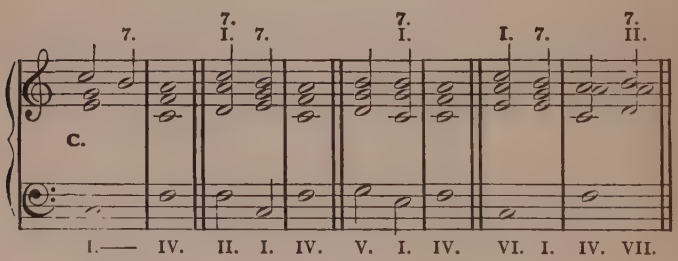

I. 7. II.
III7-5. IV.


Open. II. III. I. 7. II. 7.
3.
g.
III. VI. II. VI


II. 7. II. I. I. II. 7.
VII. V. VI. II. III-5. VI. VII.

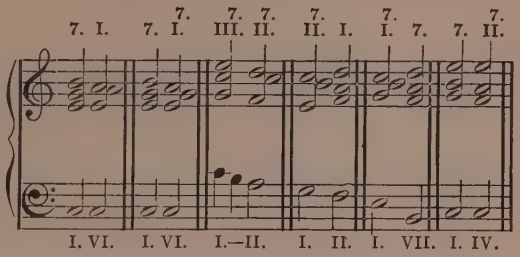
Lesson XXXV

The Tonic Seventh in Major. (I_7)

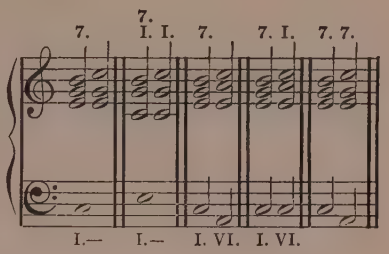
This is a major seventh and requires either diatonic or oblique preparation from the chord before. The 7th of the I_7 is the leading-tone of the scale, and, as such should ascend to the next degree. But in its regular resolution it may descend also, resolving according to the formula of V_7 to I. The chord of tendency is the IV.

The 7th of the I_7 may do four things in progressing:

1. Move down one degree.
2. Tie over into next chord.
3. Move up one degree.
4. Skip up a third.

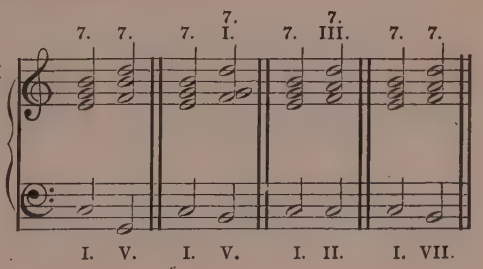
In moving down one degree the chords of progression are:

I_7 to VI.
I_7 to VI_7.
I_7 to II.
I_7 to II_7.
I_7 to VII$_7$.
I_7 to IV_7.

In moving up one degree, the chords of progression are:

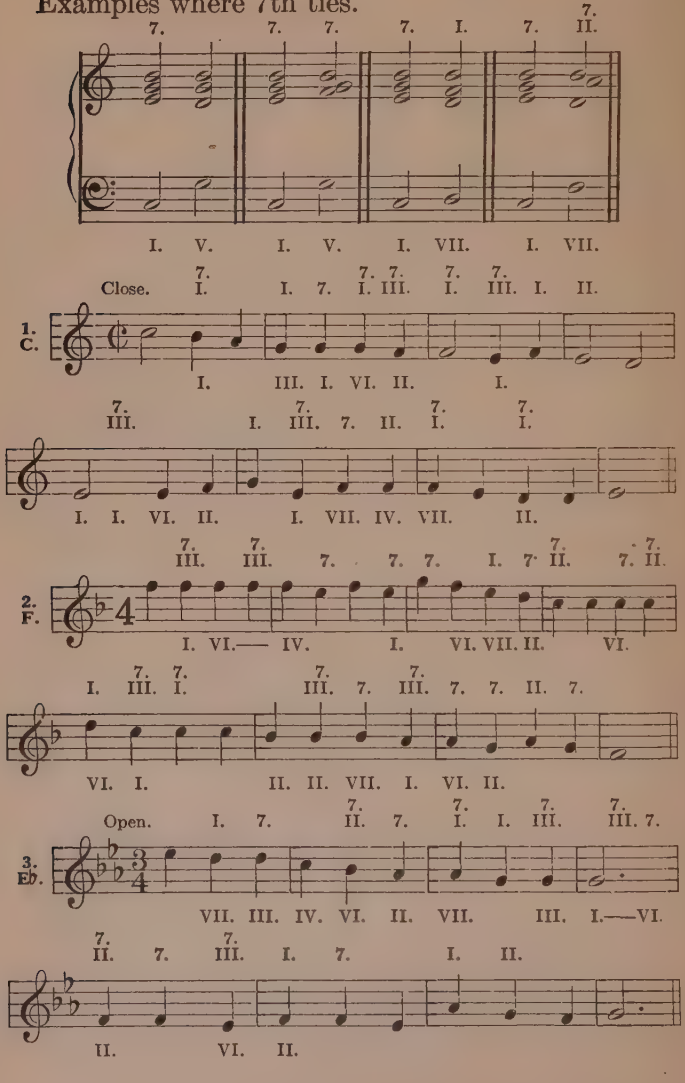
I_7 to I or I^I.
I_7 to VI or VI^I.
I_7 to VI_7.
In tying over:
I_7 to V or V_7 or V_7^{II}.
I_7 to VII or VII_7^{II}.



The 7th of I_7 skipping up a 3rd:

I_7 to V_7 or V_7^I
I_7 to II_7^{III}.
I_7 to VII$_7$.

While all these progressions of I_7 are not frequently used in the compositions of the old masters, yet they are all possibilities and as such may find occasion for use in modern writings.

Examples where 7th ties.


7. 7. 7. 7. I. 7. II.
I. V. I. V. I. VII. I. VII.
Close. I. I. 7. I. III. I. III. I. II.
1. C.
I. III. I. VI. II. I.
III. I. III. 7. II. I. I.
I. I. VI. II. I. VII. IV. VII. II.
III. III. 7. 7. 7. I. 7. II. 7. II.
2. F.
I. VI.— IV. I. VI. VII. II. VI.
I. III. I. III. 7. III. 7. 7. II. 7.
VI. I. II. II. VII. I. VI. II.
Open. I. 7. II. 7. I. I. III. III. 7.
3. Eb.
VII. III. IV. VI. II. VII. III. I.—VI.
II. 7. III. I. 7. I. II.
II. VI. II.

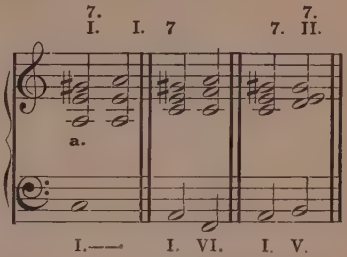
Lesson XXXVI

The Tonic Seventh in Minor. (I_7)

The I_7 in minor may be used in two forms: with raised or natural 7th. (In "a" minor: a-c-e-g♯, or a-c-e-g♮.)

With raised seventh the chord should progress to other chords in which it will be possible for the 7th to ascend one-half step, skip up a third or tie.

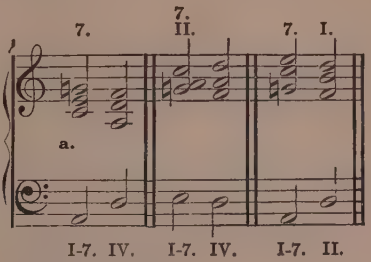
I_7 to I.
I_7 to VI.
I_7 to IV_7.
I_7 to V_7.
I_7 to VI_7.
I_7 to IV_7.
I_7 to VII^I.
I_7 to II^I.
I_7 to VII°_7.

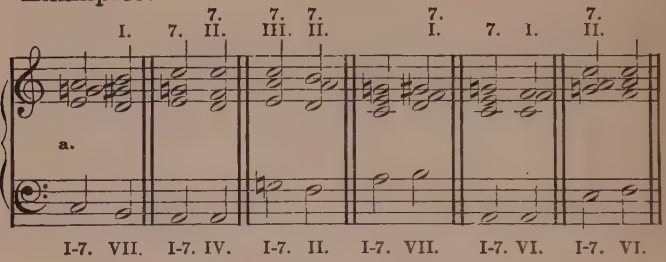


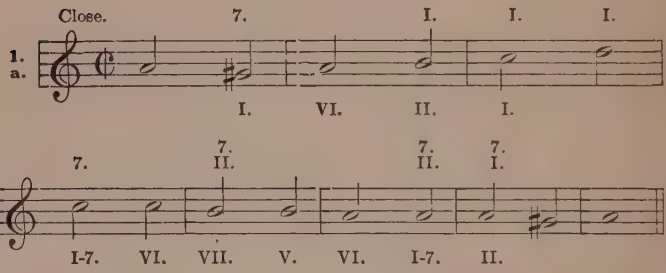
. These progressions are all more or less disagreeable and find but little use in composition.

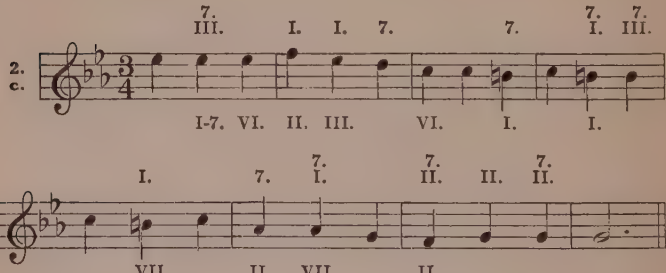
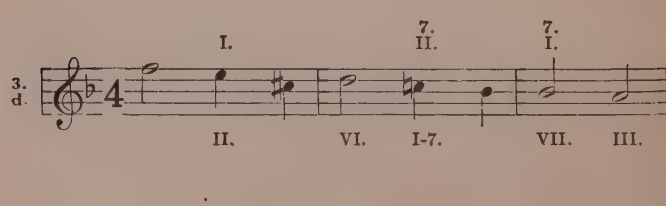
With natural 7th, the I-7 is less harsh; the 7th may then move down or tie.

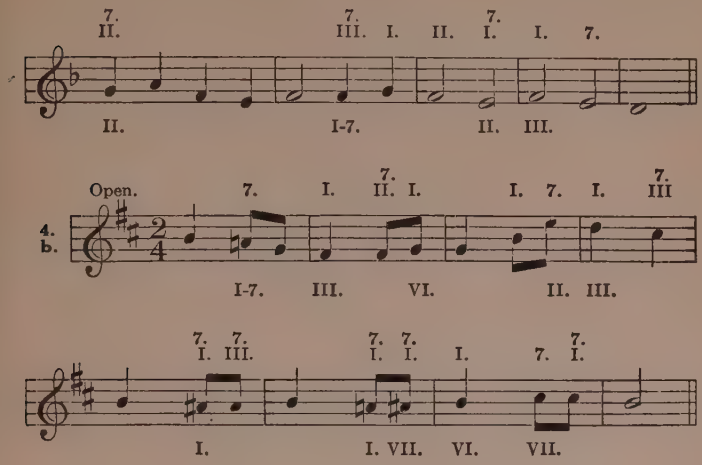
I-7 regular resolution to IV.

Irregular: I-7 to IV_7.
I-7 to VII^I.
I-7 to VII°_7.
I-7 to II_7.
I-7 to II.

I-7 to VI even less good.

Examples:

a.
I. 7. 7. II. 7. III. 7. II. 7. I. 7. 1. 7. II.
I-7. VII. I-7. IV. I-7. II. I-7. VII. I-7. VI. I-7. VI.


Close.
1. a.
7. I. I. I.
I. VI. II. I.
7. 7. II. 7. II. 7. I.
I-7. VI. VII. V. VI. I-7. II.


2. c.
7. III. I. I. 7. 7. 7. I. 7. III.
I-7. VI. II. III. VI. I. I.
I. 7. 7. I. 7. II. II. 7. II.
VII. II. VII. II.

3. d.
I. 7. II. 7. I.
II. VI. I-7. VII. III.



Lesson XXXVII

The Subdominant Seventh in Major. (IV_7)

This is another major seventh chord and requires preparation. Like the I_7 in major, the 7th may do one of four things: move down one degree, up one degree, tie, or skip up a third.

The regular resolution is to the VII triad and is not often used because of the necessity of doubling the leading-tone.

The progressions to II_7 or VII_7 are perhaps the most useful, especially with diatonic preparation emanating from the IV or II triads.

Other progressions are: IV_7 to I^I.

IV_7 to V or V^I.

IV_7 to III^I.

IV_7 to V_7.

IV_7 to VII_7.

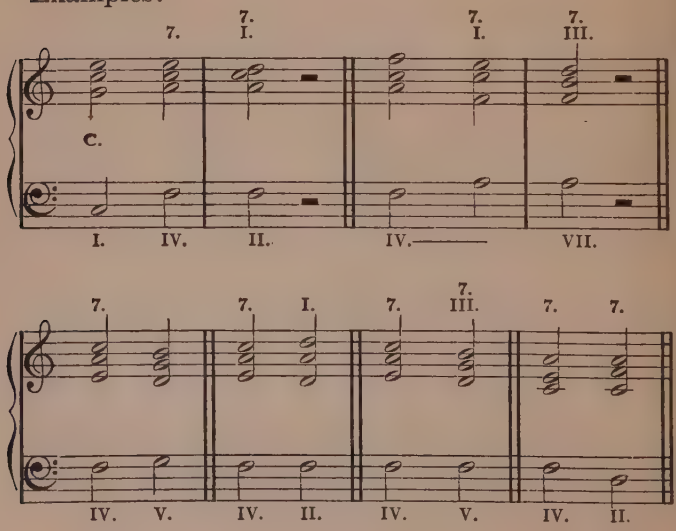
IV_7 to V with doubled 3rd.

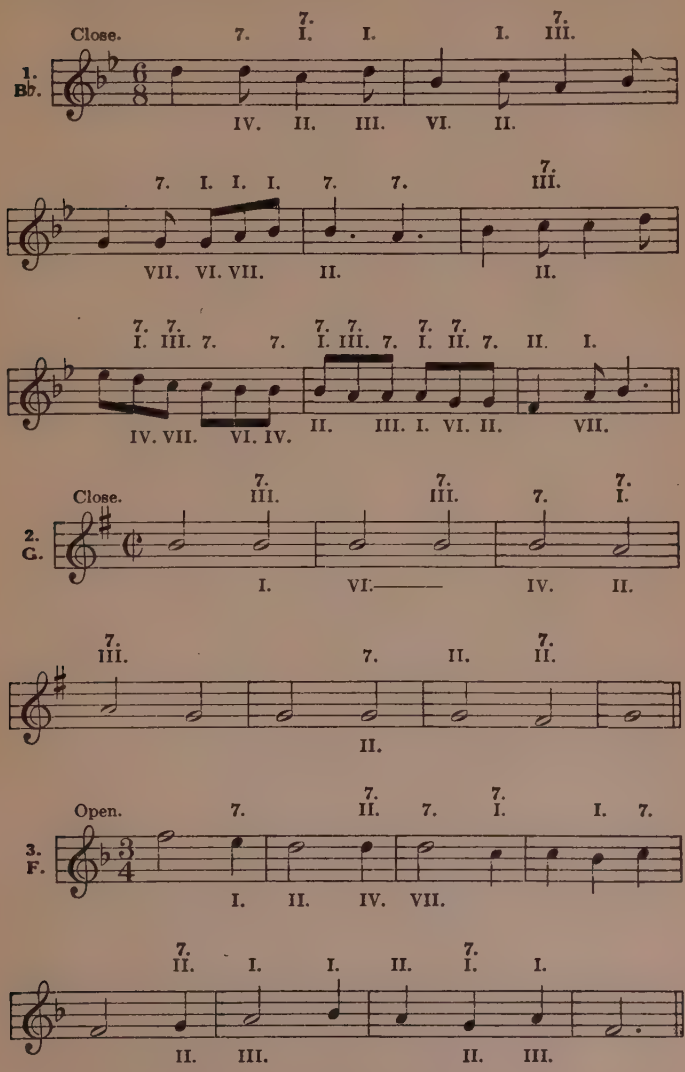
IV_7 to IV weak.

IV_7 to II or II^I or II_7.

Discrimination should be used in these progressions, as they are harsh and awkward and of little value except in rare instances when used for special effects.

Examples:




Close.
1.
B♭.
IV. II. III. VI. II.
VII. VI. VII. II. II.
IV. VII. VI. IV. II. III. I. VI. II. VII.
Close.
2.
G.
I. VI.——— IV. II.
II.
Open.
3.
F.
I. II. IV. VII.
II. III. II. III.

Lesson XXXVIII

The Subdominant Seventh in Minor. (IV_7)

The IV_7 in minor is the same chord as the II_7 in major. It is a minor seventh and needs no preparation and is one of the most useful of the secondary seventh chords in minor. Its regular resolution, as in major, is of no importance, but its irregular progressions to V, V_7, III^{I}, I^{II}, VII, VII°_7 and II_7 are all most useful and effective. The 7th of IV_7 should either tie or move down to next degree:

IV_7 to I^{II}.

IV_7 to V or V_7.

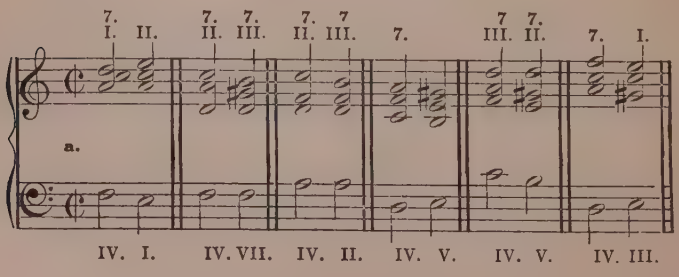
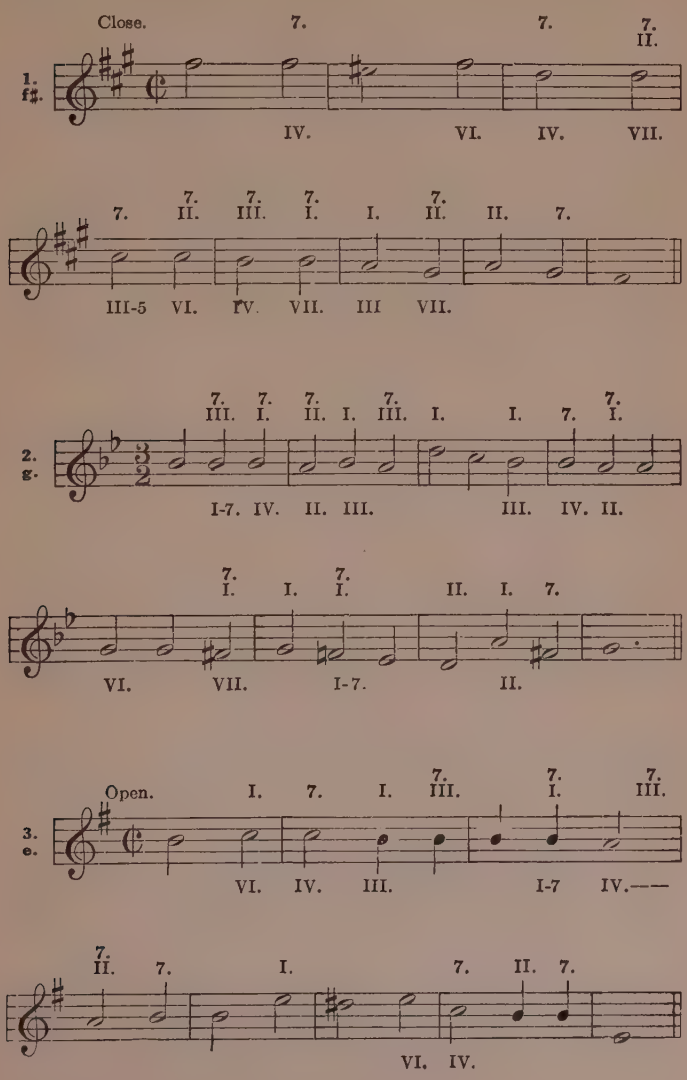
IV_7 to III^{I}.

IV_7 to VII^{I}, or VII°_7.

IV_7 to II or II_7.

Since no preparation is necessary, any I or IV quality chord may precede the IV_7.

Examples:



Close.
7.
7.
7.
II.
1.
f♯.
IV.
VI.
IV.
VII.
7.
7.
II.
7.
III.
7.
I.
I.
7.
II.
II.
7.
III-5
VI.
IV.
VII.
III
VII.
7.
7.
7.
7.
7.
III.
I.
II.
I.
III.
I.
I.
7.
I.
2.
g.
I-7.
IV.
II.
III.
III.
IV.
II.
7.
7.
7.
I.
I.
I.
II.
I.
7.
VI.
VII.
I-7.
II.
Open.
I.
7.
I.
7.
III.
7.
I.
7.
III.
3.
e.
VI.
IV.
III.
I-7
IV.——
7.
II.
7.
I.
7.
II.
7.
VI.
IV.

Lesson XXXIX

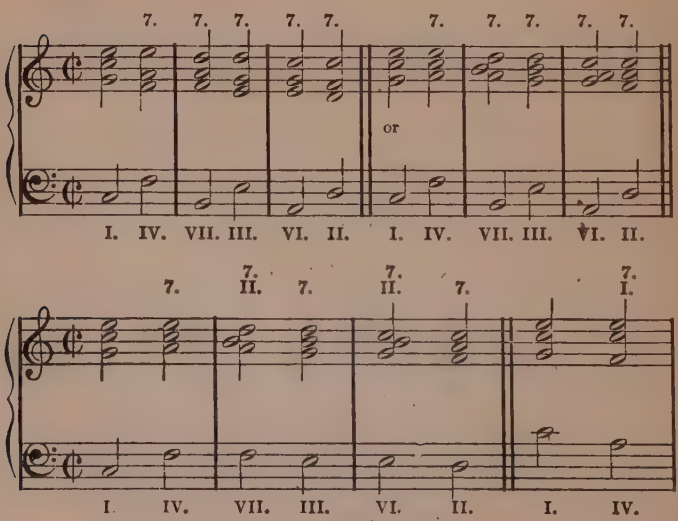
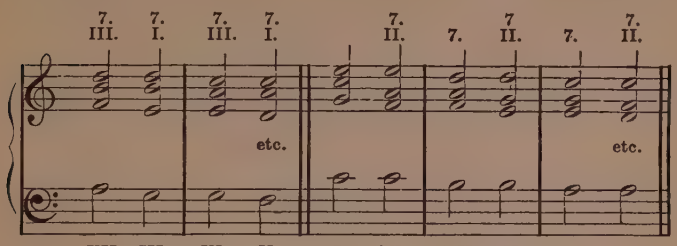
Sequences of Seventh Chords.

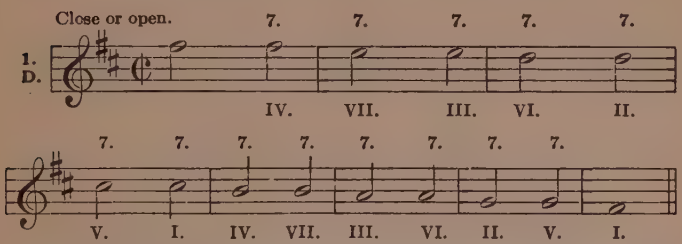
Seventh chords may follow each other in succession in regular order by maintaining the following simple arrangements:

In root positions: Double root of each alternate 7th chord and have the intermediate 7th chords complete, or vice versa.

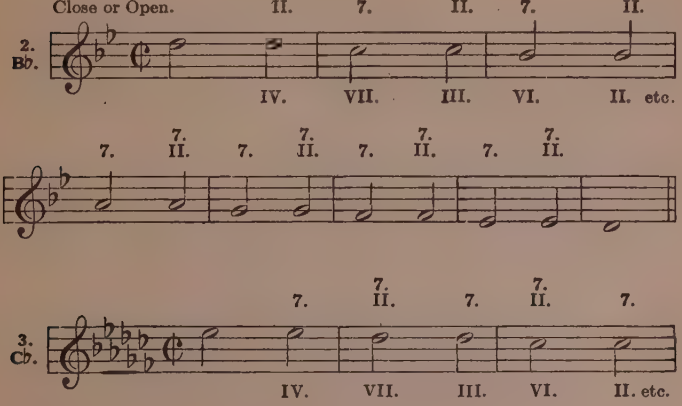
In using the 7th chords in inverted and root positions, or all in inverted positions, have all the seventh chords complete. The regular order of these chords will be IV_7, VII_7, III_7, VI_7, II_7, V_7, I_7, IV_7, etc.

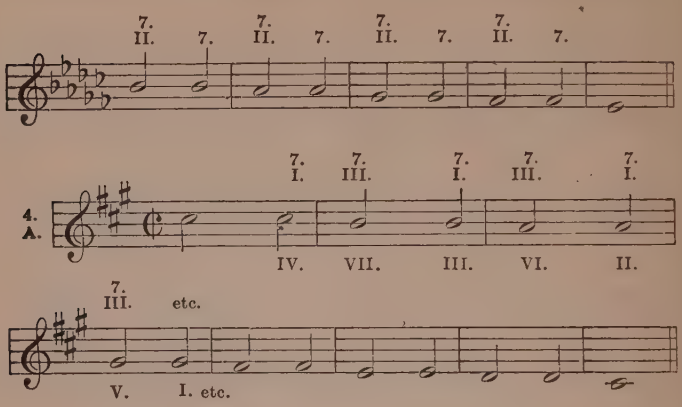
Examples:





NOTE:—The first exercise should be written in two ways: first by doubling the root of the first seventh chord and leaving the second seventh chord complete, and, second, by reversing the arrangement, leaving the first seventh chord complete and doubling the root in the second. See first two examples.





Lesson XL

The Dominant Ninth Chord (V_9)

Because this chord cannot be formed in thirds within the eight tones of the scale, there has been considerable international controversy concerning it as a pure chord formation. Certain schools recognize it as a suspension of the octave or as an appoggiatura, while other schools give it full value as a dominant chord formation. We recognize it as a combination of two chords already formed within the octave and consequently as of pure chordal formation, the combination of the V and II triads. It is, therefore, both dominant and subdominant in character, richly so, and consequently is one of the most beautiful and romantic chords in music. Its dominant quality is most apparent, perhaps, when it pro-

gresses to chords of tonic quality; its subdominant richness, when it substitutes for this formation when preceding the chords of V character.

The V_9 contains five tones, and, since but four are necessary, one of these must be omitted. The best note to omit is the fifth which has no particular value or character. The seventh or third are sometimes found omitted, although these two notes are of great importance in its formation. Still, since the chord contains so many tones of value, it will not lose greatly of its strength if one of these two tones is omitted, especially if the fifth happens to be the melody-tone.

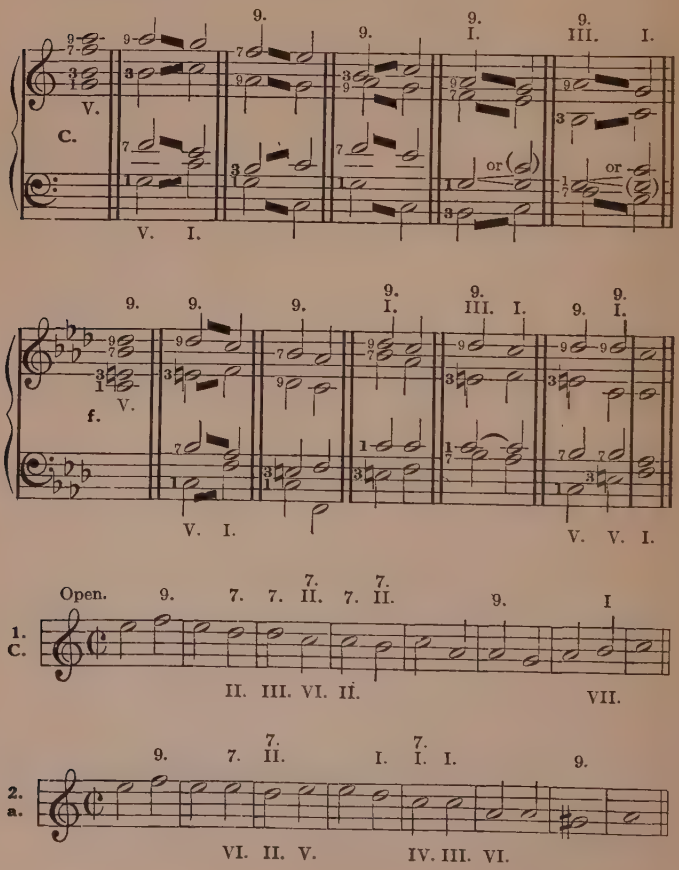
In its regular resolutions to the tonic triad, the 9th and 7th each descend to the next degrees; 3rd up to next degree; root in bass, up four or down five degrees; root in an upper voice may tie or do same as when in bass.

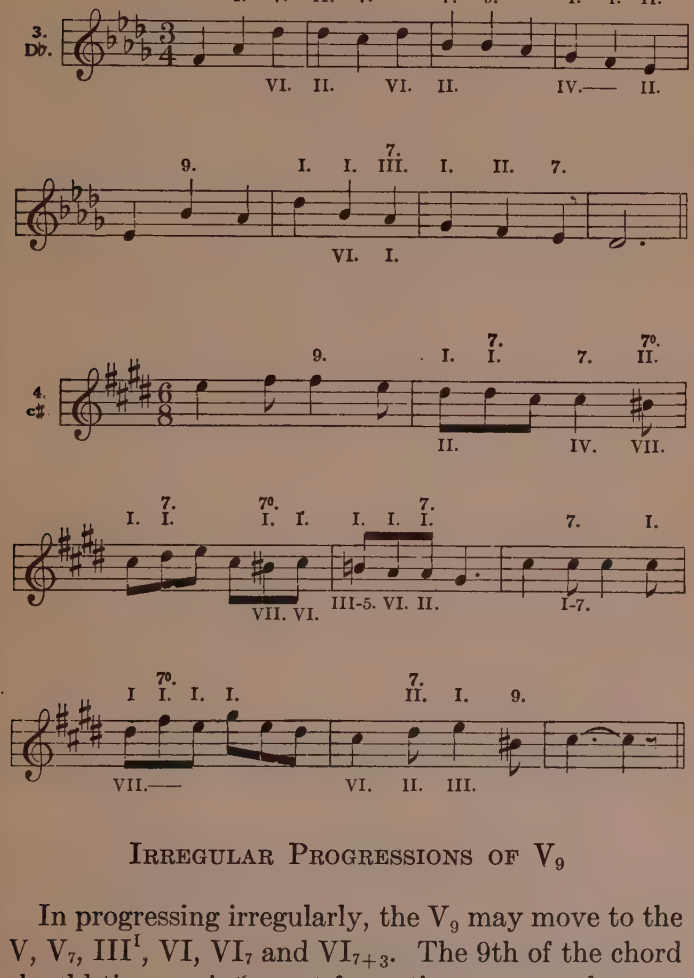
The 9th of the V_9 may be used in any of the three upper voices, but must always be kept at least the interval of a ninth away from the root of the chord, which is its regular note of tendency in resolution.

In the major mode the V_9 is a major ninth; in minor, it is a minor ninth and not quite as agreeable, but conforming to the same rules as in major.

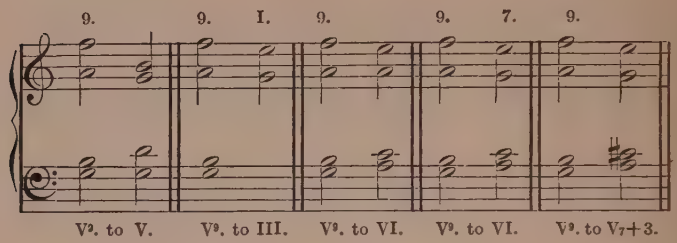
There are but two inversions possible, 9^{I} and 9^{III}. When inverted, the 9th must be in the melody and at least the interval of a 9th from the root.

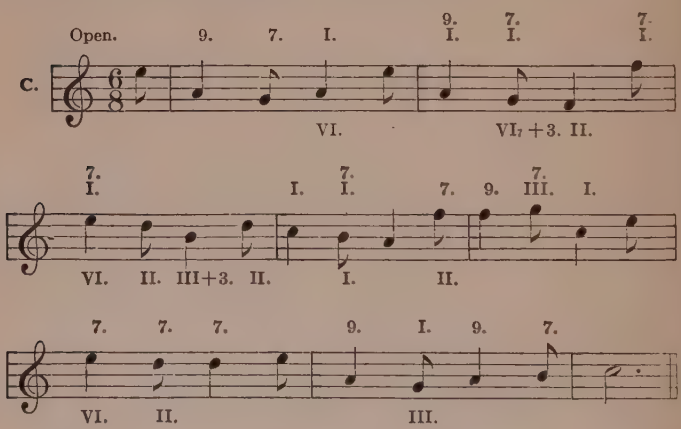
Examples of resolution V_9 to I:




3.
Db.
I. 7. 7. II. 7. 7. 9. I. 7. 7.
I. II.
VI. II. VI. II. IV.— II.
9. I. I. 7. III. I. II. 7.
VI. I.
4.
c♯
9. I. 7. I. 7. 7° II.
II. IV. VII.
I. 7. I. 7° I. I. I. I. 7. 7. I.
VII. VI. III-5. VI. II. I-7.
I 7° I. I. I. 7. II. I. 9.
VII.— VI. II. III.

Irregular Progressions of V_9

In progressing irregularly, the V_9 may move to the V, V_7, III^I, VI, VI_7 and VI_{7+3}. The 9th of the chord should tie over into next formation or move down to next degree.

When the V_9 progresses to VI_{7+3}, the following chord should be II. This will be explained in the lesson on Transitions, V formations of II, in the "Second Forty Lessons in Harmony."



In the seventh measure of the above exercise, the 9th of the V_9 chord will be found ascending one degree. This is permissible when progressing into another dominant formation. In fact, the dissonance may "escape" entirely when progression is from one to another chord of the same family.

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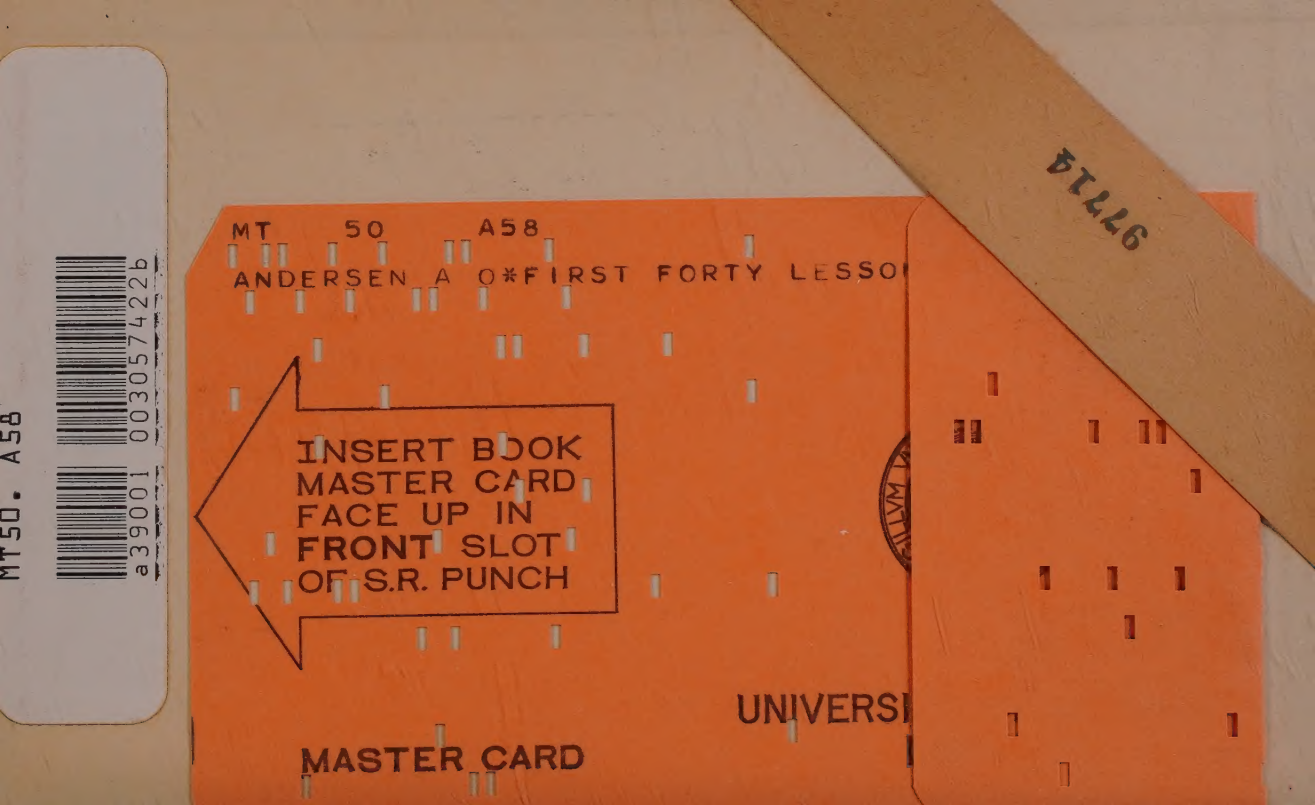
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